

UC-NRLF



\$D 40 615

A

MY
FEATHERED
FRIENDS

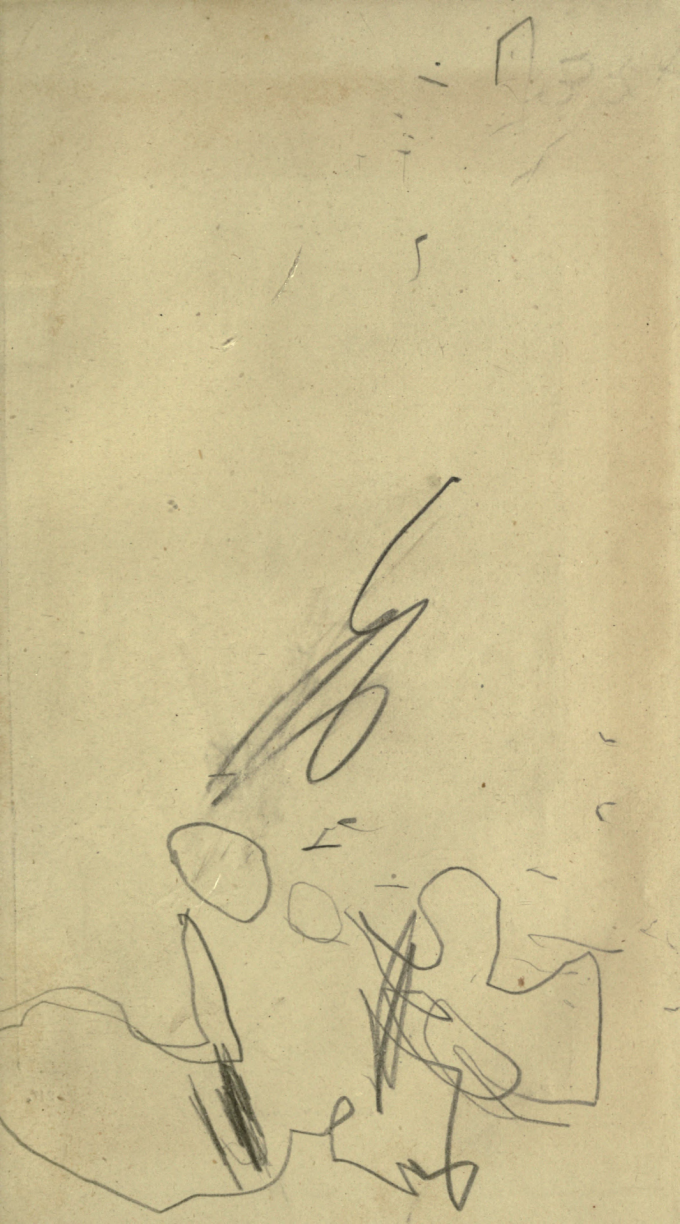
ILLUSTRATED.





THE LIBRARY
OF
THE UNIVERSITY
OF CALIFORNIA

PRESENTED BY
PROF. CHARLES A. KOFOID AND
MRS. PRUDENCE W. KOFOID





Front.

JACKDAW AND CAT.

P. 247.

MY
FEATHERED FRIENDS.

BY THE

REV. J. G. WOOD, M.A., F.L.S..

AUTHOR OF

THE ILLUSTRATED NATURAL HISTORY, SKETCHES AND ANECDOTES OF
ANIMAL LIFE, COMMON OBJECTS OF THE SEA-SHORE, ETC.

With Illustrations by Harrison Weir.

LONDON:
GEORGE ROUTLEDGE AND SONS,
THE BROADWAY, LUDGATE.
NEW YORK: 416, BROOME STREET.

M366675

K. QL673

W8

Biol.

Lib.

P R E F A C E.

In the following pages various birds are described; but I have not restricted myself to those birds whose names appear in the index, nor in point of fact to birds alone.

There are so many analogies throughout the whole animal kingdom, and so many branchlets arising from one single stem, that justice could not be done to each creature without mention of several others in connection with it.

If the descriptions were merely of external details, or of scientific facts, each bird would very properly be isolated. But, in this work, I pass lightly over the external form, in order to bring forward more strongly that which I conceive to be the true object of Natural History, namely, the character or life of the creature, which is, in fact, its essential being.

INDEX.

	Page
Apteryx	393
Bullfinch	199, 317
Canary	286
Cassowary	382
Condor	68
Crow	264
Eagles	1
Emu	390
Falcons	79, 89
Goldfinch	327
Goshawk	101, 123
Hawks	70
Hen-Harrier	125
Heron	80, 231
Humming-Birds	41, 329
Jackdaw	238
Jer-Falcon	95

	Page
Kestrel	111, 124
Kite	109
Magpie	99, 139, 181
Osprey	42
Ostrich	352
Owls	128
Parrakeet	174, 179
Parrots	158
Peregrine Falcon	80, 87
Raven	227
Rhea	384
Rook	248
Shrikes	267
Skua-Gull	40
Sparrow-Hawk	115
Starling	256
Vultures	50

CONTENTS.

CHAPTER I.

EAGLES.

PAGE

The Destroyer and the Benefactor.—Fable of the Fox and the Bear.—Effect of Accessories.—Eagle's Tenacity of Life.—Its Ferocity when Wounded.—Bird formed for Aerial Progress.—Analogy with Insects.—Tubular Form of Bone.—Eagles trained for Falconry.—Mode of Destroying Prey.—Eagle captured by a Peasant.—Tame Eagle killing a Cat	1
---	---

CHAPTER II.

EAGLES—*continued.*

Structure of Feathers.—Various Descriptions of Wing.—Nomenclature of Feathers.—Changes of Plumage.—Dr. Watts on Natural History.—Muscles of Wings.—Man formerly a Winged Animal.—Nest of the Eagle.—Ferocity of Parent Bird.—Story of Lakdar	19
--	----

CHAPTER III.

EAGLES—*continued.*

The Eagle emblemized by various Nations.—Ferocity of Bird descending to its Feathers.—Eagle tormented by Humming-birds.—Skua-Gulls attack Eagles.—The Biter bit.—Combat between Ospreys and Eagle.—The Wings used as Weapons.—Eagle's Skeleton.—Eagle-traps.—Eagle ignominiously killed.—Its Power of resisting Hunger.—“Odd” Eagle.—Eagle used as Food.—Voice of the Eagle	37
	b

CHAPTER IV.

VULTURES.

Pseudo-British Birds.—Frauds on Naturalists.—The Representative System of Nature.—Ghoules and Vultures.—Battle between Eye and Nose.—Structure of Eye.—Kestrel.—Experiment with Vultures.—Instinct.—Voracity of Vulture.—A “Game Flavour.”—Useful Property of Charcoal.—Wing of Vulture.—Its graceful Flight.—The Condor	PAGE 50
--	------------

CHAPTER V.

HAWKS.

Subjugating Power of Man.—Falcon-training among the Arabs.—Spirited Description of a Hawking Day by Gerard.—Falconry in Persia.—Falconry in England.—Rank of Hawks.—Technical Terms in Falconry.—Battle between Peregrine Falcon and Heron.—Shortening Arms.—The Horse a Boxer.—The Mantis a Swordsman.—The Chætodon a Rifleman.—The Ant a Wrestler.—Lobsters and Knights.—Electricity.—Recent Discoveries.—Rapidity of Falcon’s Flight.—Peregrine Falcon captured on board Ship	70
--	----

CHAPTER VI.

HAWKS—*continued.*

Chaucer among the Birds.—Scientific Nomenclature.—The Jer-Falcon.—Its Powers of Flight.—Goat caught by Falcons.—Russian Falcons.—Falconry in India.—Markwick a bad Shot.—Magpie Hawking.—The Goshawk.—Wood Life.—Bosjesman and Lion.—Bird of Yggdrasil.—The Shah and his Falcon.—The Kite.—Its Love for its Young	89
---	----

CHAPTER VII.

HAWKS—*continued.*

The Kestrel, or Windhover.—A calumniated Hawk.—The Field-mouse.—Moths and Housekeepers.—Nest of the Kestrel.—The Sparrow-Hawk.—Hawk and Hens.—Hawk-traps.—Ensnared Boy.—Tame Sparrow-Hawk.—Audubon’s Hawk.—Nero.—Sparrow-Hawk and Martins.—John lays a “hegg.”—John and Rosey.—Young of the Hawks.—Their Mode of Eating.—Deformed Kestrel.—The Hen-Harrier.—Strephon and his Crook	111
--	-----

CHAPTER VIII.

OWLS.

PAGE

Wizards and Owls.—Pallas Athene.—Barn Owl.—Why called Jonathan.—Oxford Owls.—Peculiar Flight of the Owl.—The Pellets.—Mode of eating Mice.—Mobbed by little Birds.—Gilbert White on the Barn Owl.—Captive Owl.—Mode of Fighting.—Owl and Cat.—Structure of Eye.—Rough Surface of Egg.—Owls and Pigeons.—Owls and Magpies.—Respectability of the Owl.—Duck-hunting.—The baffled Rustic.—Owls used as Decoys . . . 128

CHAPTER IX.

OWLS—continued.

Capital Punishment.—Strong-minded Swallow.—The Brown Owl.—Its Ears.—American Mode of killing Owls.—'Οἷλος ὄντιπος.—Note of the Hoot.—Great American Owl.—Its Discomfiture.—Its uncanny Cry.—The Snowy Owl caught on board Ship.—Sailors' Pets.—The Owl and the Crows.—Real Size of Owl.—The Owl a Fisherman.—Hoot *versus* Screech.—Luminous Eye of Owl.—Davy Jones aloft 146

CHAPTER X.

PARROTS.

Construction of Beak, and its Uses.—Representative Language.—Powers of Imitation.—Street Cries.—Polly a Practical Joker.—Polly Intoxicated.—Polly cross.—Col. Kelly's famous Parrot.—The Parrot who had seen the World.—Polly in the School-room.—Crisp Bits and Buttery Touches.—Why called Polly?—Vanity Fair.—Parrots at Sea 159

CHAPTER XI.

MAGPIES.

Beauty of Plumage.—Juvenile Magpie.—Mag of the Seven Dials.—Mag and the Dressing-case.—The Magpie's Treasury.—A Happy Family.—Feud between Mag and the Hawk.—A Magpie's Revenge.—The Bellhanger and the Magpie.—The hidden Halfpenny.—A cool Promenade.—Objection to clean Floors.—Dissection of Cushion.—Hawk in the Stocks.—Mag at Drill.—What's o'clock?—Imitation of Pigeons.—Predilection for Cheese and Milk.—Hawk in the Stocks 181

CHAPTER XII.

MAGPIES—*continued.*

	PAGE
Anti-Teetotalism.—Human Magpie.—Offended Dignity.—Cold Bathing.—Ankle-biting Propensities.—Bird-preceptors.—Mag Gardening.—Hawk Persecution.—A Robber and his sad End.—The Laundress's Friend.—An aristocratic Thief.—Nest of Magpie.—A narrow Escape.—Egg-robbing.—A Thief caught in his own Trap.—Carnivorous Propensities of Magpies.—The Magpie and the Birds.—Professor Pica's Lecture and its Results.—Choice of Trees	196

CHAPTER XIII.

MAGPIES—*continued.*

Superstition respecting Magpies.—The "odd" Magpie.—Derivation of Name.—Representative Names.—The Battle of the Frogs and Mice.—The Pie used in Heraldry.—Quarrel between Courtenay and Dalzell.—Set a Thief to catch a Thief.—Watchful over Sportsmen.—Trial of Temper.—Mag curtailed.—An arithmetical Magpie.—Parental Love and its Modifications	210
--	-----

CHAPTER XIV.

MAGPIES—*continued.*

Our Friend again.—Cold and warm Baths.—Dialogue from Lucian.—The Allegory explained.—Story of the Goat, the Lion, and the Fox.—Force of Intellect.—Waiting on an Invalid.—Mag turned Gardener.—Green Peas.—Birds understand human Language.—The Magpie in the Cellar.—Mag beaten at last.—Cruel Custom	218
--	-----

CHAPTER XV.

RAVENS.

L'Estrange.—"Honi soit qui mal y pense."—A practical Joker.—Food of Raven.—Its Beak.—How to see Ravens.—Ravens in a Heronry.—How a Raven fights.—Poets and Ravens.—Mythology.—Story of Apollo and his Raven.—Force of Flattery.—Expanse of Wing and Mode of Flight.—The King of the Menagerie.—A bad Postman.—"When Greek meets Greek."—Raven's Nest	227
--	-----

CHAPTER XVI.

JACKDAW.

PAGE

A Bird of low Tastes.—Making sure.—Muzzling a Jackdaw.—Different Modes of destroying Prey.—The contemplative Man's Recreation.—A sociable Jackdaw.—Thrice slaying the Slain.—How to shell Oats.—Jack travelling by Rail.—His Love of Bathing.—Nests of Jackdaw.—Bird-nesting.—Materials of Daw's Nests.—Alliance between Daws and Rooks.—Jackdaw and Cat 238

CHAPTER XVII.

ROOKS.

Distinction between Jackdaws, Crows, and Rooks.—Scientific Controversies.—Conflicting Testimonies.—Discrepancies reconciled.—Wariness of the Rook.—Rook-shooting.—Sword-practice.—Phenomena produced by instantaneous Death.—Air-guns and Cross-bows.—Rooks subject to Epilepsy.—A Servant's Revenge.—Rook-pies.—A roasted Starling.—Scarecrows.—Rooks half-seas-over.—Curious Mode of catching Rooks.—Services weighed against Injuries.—Curious Instinct.—White Rooks 248

CHAPTER XVIII.

CROWS.

Crows and Rooks generally confounded together.—Crows' Eggs.—Position of Nest.—A Crafty Crow.—The Eggs of the Crow edible.—Egg-feasts.—“The Crow! the Crow!” 264

CHAPTER XIX.

SHRIKES.

Analogies.—The Shrike-Man.—The Cinereous Shrike.—Its similarity to the Mocking-Bird.—Curious Habit.—The Law of Retaliation.—The Cinereous Shrike employed in catching Falcons.—Its Powers of Imitation.—Its Mode of destroying its Prey.—Used in Falconry.—The Mata-gasse.—Nest found in England.—Systems of Ornithology.—Ferocity of a Shrike.—Red-backed Shrike.—Its Nest and Food 267

CHAPTER XX.

CANARIES.

PAGE

Why a Coat was hung up.—Introduction of the Canary into England.—History of my Canaries.—Antiqua and Nova.—Their Cage and its Construction.—My wicked Cat.—Sad Fate of Antiqua, and danger of Nova.—How to prevent a Cat from killing Birds.—Pussy's Memory.—His Dignity.—Nova injured.—Her Recovery.—Nova on a Journey	286
---	-----

CHAPTER XXI.

CANARIES—*continued.*

History of Canaria.—Net-door.—The Court Journal.—Melancholy Event.—Unprincipely and unpaternal Conduct.—Importance of Ventilation.—Eric and his Character.—His Benevolence and eccentric Habits.—Zephyrus.—Her Arrivals.—Illness and Cure of Cicindela.—Recipe for the Surfeit.—Fits.—Arrival of Osmond.—His pugnacious Character.—His Marriage with Cicindela.—Conjugal Quarrels, and Reconciliation	294
---	-----

CHAPTER XXII.

CANARIES—*continued.*

Xeranthemus becomes jealous.—Revenge.—Importance of the Morning Sun, and of Quiet.—The Birds dislike the Lamp.—Osmond perplexed.—Observant Character of Canaries.—Their Squabbles at Roosting-time.—Fighting for Food.—Clever Management.—Mischievous Habits.—Bath put to a wrong Use.—Nest Building.—Picking a Bone.—Their Fear of a Ball.—How to tame Canaries.—Trained Birds.—Bird-Hawkers to be avoided.—Masquerading Sparrow.—A.D.L.L.	304
---	-----

CHAPTER XXIII.

CANARIES—*continued.*

Young Canaries.—Juvenile Impertinence.—Necessity of Lime for the Birds.—Soft Food.—Various Bird-seeds.—Self-starvation.—Curious Accidents.—Feather Eaters, and Feather Stealers.—Canarian Curiosity.—Playfulness of Young Birds.—Character of Xeranthemus.—His Discomfiture.—Ungrateful Children.—Love of "Make-believe."—Various Modes of Bathing.—Singular Mistake.—Nova's last Failure.—Her change of Temper.—The Swing Perch.—Various Breeds of Canaries.—Mule Birds	312
--	-----

CHAPTER XXIV.

HUMMING-BIRDS.

PAGE

Contrasts of Structure.—Correspondences of Nature.—	
Feather-pictures.—Change of Tints.—Simulated Death.	
—Acclimatization.—Humming-birds domesticated in	
America.—Audubon's Account.—Webber and his Pets.	
—Curious Discovery.—The two Descriptions reconciled.	
—Spider-robbing.—Do Spiders eat Humming-birds?—	
Madame Merian.—Pugnacity of the Humming-bird.—	
Beauty of its Nest.—A curious Example of Nest-making.	
—How Humming-birds reach their Nests.—Their Voice.	
—Drab and Mud	329

CHAPTER XXV.

OSTRICHES.

Contrasts of Structure.—Legs of the Ostrich.—Its Means	
of Defence.—Wings of the Ostrich.—Running against	
Wind.—The Camel-bird.—Ostrich Plumes.—How pro-	
cured.—Cunning of the Bosjesman.—Ostrich-Stalking.	
—Arrow-poison.—Latet Anguis in Arenâ.—Brains	
<i>versus</i> Legs.—Practical Mathematics.—Getting the	
"Wind" of the Birds.—Speed of the Ostrich.—Fury of	
the wounded Ostrich.—Singular Use of Ostrich Plumes.	
—Mobbing to Death.—Knob-kerries.—Curious Treat-	
ment of the slain Ostrich.—How to preserve Ostrich	
Plumes.—Spur-quills of the Wing.—Use of the preserved	
Skin	352

CHAPTER XXVI.

OSTRICHES—*continued*.

"Salmagundi."—Contents of an Ostrich's Stomach.—Bul-	
let-eating.—Ducklings devoured.—Ostriches destructive	
to Corn.—Ostrich Eggs.—How to make an Omelet.—	
Egg-pebbles.—The Eggs easily preserved.—Egg-shells	
used as Water-jars.—Singular Stratagem.—Number of	
Eggs in a Nest.—Jealousy of the Parents.—Their Care	
of the Eggs.—Arabic Fable.—Decoy Ostrich.—Medicinal	
Properties of Ostrich Egg.—Medical Science.—Voice	
of the Ostrich.—Winged Horses.—The Spine of the	
Ostrich.—Wholesale Destruction.—Curious Resem-	
blances of Structure.—Internal Water-vessel.—An	
Ostrich Chase	367

CHAPTER XXVII.

OSTRICHES—*continued.*

	PAGE
The Ostriches of both Worlds.—Asia.—The Cassowary.—	
Its Plumage and Colour.—The Wing-spurs.—Structure	
of the Head.—Its Food.—Irritated by the Colour red.—	
America.—The Rhea.—Its Voracity.—How destroyed.—	
Its Power of swimming.—Structure of Nest, and Descrip-	
tion of Eggs.—The “Huachos.”—Ferocity of the Rhea	
when sitting.—The “Bolas.”—The Petise.—Australia.—	
The Emu.—Its Sanctity.—Curious Custom.—Emu Oil.	
—Young Emus.—Voice of the Emu.—Its Size.—	
Arrangement of its Feathers.—New Zealand.—The	
Apteryx.—Why so called.—Its native Name.—Uses of	
its Plumage.—How obtained.—Discretion and Valour.—	
Warning to Taxidermists.—Curious Habits.—Beak of	
the Apteryx.—Its Mode of obtaining Food.—Its pro-	
bable Extinction	382

MY FEATHERED FRIENDS.

CHAPTER I.

EAGLES.

The Destroyer and the Benefactor.—Fable of the Fox and the Bear.—Effect of Accessories.—Eagle's Tenacity of Life.—Its Ferocity when Wounded.—Bird formed for Aerial Progress.—Analogy with Insects.—Tubular Form of Bone.—Eagles trained for Falconry.—Mode of destroying Prey.—Eagle captured by a Peasant.—Tame Eagle killing a Cat.

At the head of the birds, the Accipitres or Hawk tribes are placed, probably because they are rapacious birds, gaining their living by destroying life, and do little direct good to the community.

There seems to be a general inclination to exalt destruction, and this idea peeps out in science, as well as in the ordinary affairs of life. Among mankind, the propensity to worship the destructive powers appears innate, and is exhibited in its strongest form among uncivilised heathens, whose first idea of any object to worship is that of a destructive power, and who consequently give their adoration, such as it is, to the unknown Being who can injure. A higher degree of cultivation is required before there is a capability of contemplating a Being who can benefit.

Even in the very highest stage of civilisation, the

Destroyer is set above the Preserver, and for one person who would care to see a philanthropist like Howard, thousands rush to catch a glimpse of a murderer like any one of those whose crimes almost daily defile our newspapers.

So it is in science. Chemistry is a calm and quiet science enough; but put a boy into a chemist's laboratory, and let him hear a lecture. If he is asked to give an account of what he has heard, he is mightily accurate and vivid in his description of everything that flashed, banged, or exploded; but he generally forgets the substances that dissolved quietly. It is a very natural feeling, from which no one is free, and has influenced, perhaps unconsciously, the arrangement of animated beings.

Until very lately, the lion was placed at the head of the brute creation, because it could leap further, claw more fiercely, and bite harder than any animal, and because, if it were to spring upon a man, it would probably tear him to pieces sooner than other animals could, and eat more of him afterwards.

So in gratitude for these favours, the quadruped was exalted to the kingdom of beasts, just as in return for similar favours bipeds are exalted to the kingdom of men. Even those who suffer seem to prefer king Stork to king Log, and are proud of their monarch because he has such a good appetite.

It is the same with insects. At their head is placed the tiger beetle, whose name is indicative of its character. Indeed, if the most ferocious Bengal tiger of the present day were endowed with wings, he could not be compared with the tiger beetle in ferocity, strength, or voracity, if their sizes were proportionate.

One reason for this propensity for preferring the power of injury to the power of benefit is, that the former is more prominent than the latter, and forces itself more on the notice. The honey-bag lies hidden, but the sting is shown. Therefore, by common consent the rapacious birds are considered as the aristo-

cracy of the feathered tribes, and the eagle reigns as their king. Certainly, if strength, swiftness, and energy are titles to the crown, the eagle holds it worthily. There is a German fable in rhyme much to the point.

Early one morning, a fox was creeping out of a village farm-yard, carrying a fat hen in his mouth, when he ran against a bear. "Ah!" said the fox, putting down the fowl, and bowing politely, "I have the honour to wish, your lordship a very good morning. I have taken the liberty to bring your grace a hen. Your highness is graciously pleased to walk earlier than usual. Permit me to ask if your royal highness is about to extend your promenade?"

"Ugh!" growled the bear, "why do you call me royal highness? Who told you that I was a royal highness?"

"If I may venture to say so, I was told by your royal highness' fangs."

So the eagle grounds its pretensions to majesty on the sharpness of its claws, the swiftness of its wings, "the terror of its beak, and lightning of its eye." It is certainly a grand and majestic bird, even when seen under the most unfavourable circumstances. Take it away from its native rocks and glens, separate it from its mate, immure it in a cage that hardly permits it to expand its wings, feed it on offal or cooked meat instead of giving it the living and bleeding prey to which it has been accustomed; in short, treat it as tyrants of old treated captive monarchs; and it looks the monarch still. Although it may sit on its perch, calm and unheeding, it only requires to be roused, for its old fiery nature to flash out, and for a moment it forgets its captivity. Its eyes sparkle, its whole body dilates, its crest rises, it paces its prison with stately steps, and deafens the ear with its piercing cries. Those who value their persons would do well to keep out of its reach when in this state of furious excitement.

Such being the aspect of the captive eagle, its demeanour must indeed be majestic when it is free among its accustomed haunts.

All the birds of prey are endowed with certain characteristics, which mark them out clearly and decidedly, the two principal of which are the beak and the claws or talons. Both beak and talons are sharp and strongly curved, the edge of the beak being also sharp like a knife blade. Sometimes, as in the owl, the beak is curved throughout its entire length, but usually the curve begins at some little distance from the base of the beak. The beak of the eagle is nearly straight, until within a short distance from the tip, when it suddenly and sharply curves downwards.

There are many species of eagles, some of which are found in Great Britain. It is a very rare circumstance to find one in England, but eagles still exist in some numbers in the more uncultivated parts of Scotland. The eagle is also found in Ireland, nearly invariably in the craggy portions of the island, and in some places the eagles always build in the same spot year after year. Eagles always prefer crags if they can be found, and upon the loftiest and most inaccessible ledges of rock their nest is placed.

An eagle always seems to require a rock before it can look as an eagle ought to look, and it is for that reason that the birds who are confined in cages, or stuffed and put into square boxes with glass fronts, give such very mean ideas of the real appearance of the bird. Every one who has visited the Zoological Gardens in the Regent's Park will remember how the rocks and eagle seem to belong to each other, and how different is the aspect of one of these birds perched on the rough crag, from that of the same bird when on the ground or sitting on a mere wooden bar.

I have seen one most miserable example of a captive eagle. The poor bird had by long confinement lost the greater part of its spirits, and nearly the whole of its royal demeanour. It sat crouching on a perch,

looking thoroughly cowed down and ashamed of itself. Its plumage was torn and ragged, its tail was worn by friction against the bars of the cage, until it looked as disreputable as a second-hand dress-coat in Holywell Street; the fire of its eye was gone, and its beak had been so softened by constant feeding on wet food, that its colour had become a dingy yellow, and it had grown into a deformed, powerless excrescence. Nothing of the eagle was left except the talons, but they seemed to clasp the perch with full aquiline energy.

It was really a pitiable sight, and if the bird had been mine, I should have tried to restore it to its natural activity and brightness by proper food and sufficient exercise; or if the endeavour failed, should have put an end to its life in pure mercy.

I may as well mention that to kill an eagle without disfiguring it is not very easy. The bird does not seem to care very much for poisons, either mineral or vegetable, the noxious smell of sulphur or the suffocating waves of carbonic acid gas seem to be endured with as much impunity as ordinary air. The experiment has been actually tried, and found unavailing. The proprietor of the bird was anxious to destroy it without injuring the plumage, so that its skin might be preserved. For this purpose he placed the eagle in a cage, and gave it several poisons without producing any perceptible effect. He then placed a pan of lighted charcoal by the cage, enveloped cage and pan in blankets, stopped the crevices of the doors and windows, and left the room closed.

In vain did he listen for the sound of the bird falling on the floor, and, after waiting for several hours, he entered the room, supposing that the bird must have died on the perch. The room was so filled with the noxious gas, that it was hardly possible to breathe even at the height of a man's head, so that the lower portions of the room must have been quite filled with the gas to the exclusion of atmospheric air. Besides, the coverings that enveloped the cage and brazier

would have concentrated the noxious vapour, and enhanced its injurious effect.

But on the withdrawal of the blankets, the eagle was seen sitting calmly on its perch, its bright eye undimmed, glancing proudly at its intended murderer.

The same process was then repeated, lighted sulphur being substituted for carbonic acid gas, and with the same result. At last the eagle was destroyed with a long and sharp needle, which was passed into its heart, and caused instantaneous death.

It is worth noticing that such a mode of death is the capital punishment among the Malays, and is called "krissing," from the kris, or dagger, which is the instrument of death. The left arm of the culprit is elevated, the point of the kris is placed under the arm, a sharp thrust is made obliquely downwards, and the criminal falls dead without a struggle.

This mode of destruction, by passing a sharp point into the heart, is very convenient where it is requisite to preserve the skin of a bird or quadruped entire. If a bird is the subject, the weapon can be directed downwards from the upper portion of the thorax, or from the side under the wing if more convenient. If one of the mammalia must die, the best spot for the puncture is between the ribs, just behind the shoulder. A small bird, however, may be killed by compressing the thorax smartly.

The tenacity of life possessed by the eagle is well shown when the bird is wounded. Nearly all powerful animals, whether men, quadrupeds, birds or reptiles, are peculiarly savage when wounded. It is said of the lion that he is never so dangerous as when at the point of death, and the same trait of character is related of many other creatures. Falconers know well that when their birds have brought down a heron, it is a service of some danger to seize the wounded bird, for its lance of a beak seems to be peculiarly attracted by eyes, and unless the captor has a quick hand, as well as a wary eye, the latter organ

is in some danger. Indeed, only a few months ago, a wounded heron pecked out the eye of a poor boy who uncautiously approached the dying bird, and the brain itself had an almost miraculous escape.

As the eagle is, among birds, precisely the analogue of the lion among beasts, it may well be imagined that its dying struggles are terrific. For, just as the lion rips and tears with his claws, as well as bites with his teeth, so can the eagle rip and tear with his talons, while his beak is ready to peck; the claws being, in both cases, the more fearful weapons of the two.

It is no easy matter to get at a wounded eagle, or, indeed, at any bird of prey who means to fight; for if it cannot fly, it throws itself on its back, spreads out its wings to act as levers for support, and strikes furiously with the claws. I know from experience that some practice is required even to capture a common owl, and in the case of an eagle, which is ten times more ferocious, and twenty times as strong, the difficulty may be imagined.

In an amusing work, "Two Years in Africa," by M. Marcotte de Quivières, there is an example in point.

M. Quivières was wandering over some rocks, when a magnificent eagle passed so close, that he could distinguish its brilliant eye and hooked beak. He fired at the royal bird, which received the charge in its wing, turned over two or three times in the air, and fell to the ground. When fallen, it acted as such birds do—threw itself on its back, and struck so fiercely with its talons, that its conqueror dared not approach. He did not wish to kill the bird, as he had a desire to carry it home alive as a trophy. But how was he to do it?

Had not help come just when it was wanted, there would have been no other course open but to kill the bird. However, the required assistance arrived in the person of a young Moor, who secured the bird in

rather a clever manner. He unwound a cord that held up his dress, made a slip noose at one end, and threw it over the eagle's feet. Having thus made himself master of those terrible claws, he held down one of its wings with his foot, while he bent the other over its back, and so secured them both. He then hoisted the bird on his shoulders, and carried it off in triumph.

With one exception, the whole of the mammalia are terrestrial, being unable to support themselves in the region of the air. There are certainly some few mammals, such as the whale, dolphin, and other cetacea, which pass their lives in the sea, but even these must be reckoned among the inhabitants of the earth, as they are not capable of raising their bodies into the thin substance of the atmosphere. Only the bats can support themselves above the earth by the use of wings, or rather of wing-like arms, for the flying squirrel can merely expand itself so as to float through a very limited space, just as a flat piece of wood or a tile will be supported by the atmosphere as long as the original impulse exists. The squirrel is no more able to give itself a fresh impulse in the air than is the tile.

But when we come to the birds, the exception becomes the rule, nearly all birds being able to support themselves in the air, and to direct their flight. It is true that some birds are much more gifted with this power than others, but still the power exists in nearly all.

It is evident, then, that the whole form and construction of a bird must be directly opposed to that of a quadruped, and that the framework on which the living flesh is supported, must be modified in order to suit the intended habits of the creature.

From the earliest ages, men have been so envious of the flight of birds, that they have tried to imitate their feathered friends, and endeavoured, like them, to skim at their ease through the atmosphere. But

every effort has proved unavailing, from the time of Icarus, up to the "Flying Man," and every man-bird has ignominiously failed in his attempt, some adventurers having lost their courage, some their limbs, and some their lives. And the reason of the failure may be easily ascertained.

In the first place, the wings of birds are very much longer in proportion to their bodies than are the arms of man. This is seen even in short-winged birds, such as the partridge or the sparrow, while the wings of the frigate bird or the albatross are so long, that at a distance the bird appears to be all wing. Then again, these enormous wings must require corresponding muscles to work them, so that even if we could make wings of proportionate size, and fix them on our arms, we should still be as much tied to the earth as before, for want of the power to move them. Again, even if we had the requisite limbs and muscles, and had been furnished with a goodly array of feathers, our efforts at flight would be unavailing. We might possibly be able to descend from a height without injury, but we should not be able to ascend, and so should lose one of the principal objects of flight, while it would be perfectly impossible to transport ourselves through the air. The reason of our failure would lie principally in the structure of our skeleton, together with the comparative imperfection of our organs of respiration.

The bone of a bird is of a very different texture from that of man. It is hollow, contains air instead of marrow, and is throughout of a far more porous and spongy texture than the bone of man or of quadrupeds; and this texture is retained even when the bird is not intended to fly. It is well known that as the bone becomes older, its substance solidifies; and therefore we might be led to imagine that if a section of the leg-bone of an adult ostrich, a wingless, or rather a flightless bird, were placed under the microscope, it would present a much more solid and firm

appearance than a similar section taken from a young mammal.

But such is not the case; and the distinction between the two is so great as to be evident to the unassisted eye, while if even a moderate magnifying power is brought to bear on them, the distinction is so clearly marked that the most inexperienced spectator would at once refer the two sections to different classes of animals.

Into these hollow bones the air is forced from the lungs, and thus the body of the bird is rendered much lighter, bulk for bulk, than that of a mammal; and so plentiful is the supply of air through the bones, that respiration can be partially carried on even when the ordinary channels are stopped.

This was discovered accidentally by a sportsman, who had shot a bird, which fell into the water. He had only wounded it, and in order to kill it easily, he held its head under the water into which it had fallen, as its plumage was already wet, and could not suffer more damage. But the bird had a particular objection to being drowned, and obstinately persisted in remaining alive, even though its head had been under water for thrice the time that would have drowned an ordinary bird. At last the cause of vitality was discovered in a shattered wing-bone, the broken extremity of which remained out of the water, thus affording a channel through which the bird continued to draw sufficient air to support life.

Nor are birds the only animals whose bodies are thus permeated by air. Every practical entomologist knows that the air-tubes which supply the place of lungs in insects are carried throughout the body, and even to the ends of the limbs, so that the legs and antennæ of an insect become organs of respiration as well as of locomotion or touch. In the elaborate work on the anatomy of the common cockchaffer, by Strauss Durekheim, there is a drawing of the air-tubes and sacs that fill the interior of the insect.

These can hardly be seen when the insect is dead, but when living the act of respiration makes them sufficiently conspicuous.

There are some birds who can still further increase the comparative bulk of their body by driving air into a series of cellular spaces between the skin and the muscles. Of this structure the common gannet, or Solan goose, is a familiar example, and by this power it attains that complete buoyancy which enables it to ride fearlessly and unharmed on the rough waves of a troubled sea. The inclosed air also benefits the bird in another way.

When the gannet sees from its lofty height its finny prey, it proportions the rate of its descent to the size of the fish and its depth in the water. If the fish is small and near the surface, the bird sweeps over the waves, and snaps it up just as a swallow snaps up a fly. But if it is of a tolerable size, and rather deep in the water, then the gannet hurls itself headlong upon it, plunges into the water, driving up the spray like a cloud, and then emerges from the surface, bearing the prey in its beak. Now every one knows that if the hand is struck upon the water, the sensation is nearly as painful as if a board were struck; and those who are accustomed to dive from heights always take care to keep the body straight, and to join the hands over the head, so as to plough their way through the water, which otherwise would strike against the head with unpleasant violence.

What, then, must be the force of the water against a body falling from the enormous heights from which the gannet plunges, especially when an initial velocity is imparted to it beside that which results from the force of gravitation! Here the inclosed air comes into operation, and, by acting as a spring, guards the body of the bird from the direct shock that might otherwise be felt; it also prevents the bird from sinking too deeply into the sea, and assists it in regaining the surface. The extraordinary amount of air which

pervades the body of a bird explains the curious fact that a singing-bird should be able to pour out such volumes of sound from so small a body and without apparent fatigue. A man would be soon fatigued if he were provided with a whistle and set to oppose a canary or a nightingale, although the comparative size of the lungs of the bird and the man is so infinitely in favour of the latter.

In many of the water-birds there is a curious structure of the bones of the chest. If these birds were to breathe, as animals generally breathe, partially by means of the expansion of the chest, they would find their swimming powers much injured by the constant alteration of form of that portion of their bodies which is under the water—it would make their course as uncertain as would be that of a vessel whose bottom changed continually from that of a punt to that of a keeled boat, and *vice versá*.

As, moreover, the weight of the body rests upon this part, every respiration would raise and lower the body, and even if these difficulties were overcome by habit and increased power of muscle, there would be another impediment in the feathers, which would be separated from each other by the expansion of the breast, and would therefore permit the water to penetrate between them.

Therefore, in these birds the breast-bone and the ribs have a larger extent than in the wholly terrestrial birds, and the requisite change in the chest for the purpose of respiration is made by those portions which are out of the water.

But to return to the eagle. It is capable of being tamed when taken young, and of being taught to chase game after the manner of falcons. Dame Juliana Berners, however, objects to the use of the eagle for this sport, not on account of the difficulty of training the bird, but on account of its weight in the field.

The abbess of St. Alban's advises that "the eagle,

the vulture, and the merloun be not enlured or reclaimed, because they be too ponderous to the perch portatif." By the "perch portatif" is meant the square framework on which the hawks perch when carried to and from the field, and which was suspended by straps from the shoulders of the falconer, who was thus surrounded by his feathered favourites. A good example of the "perch portatif" may be seen in Landseer's well-known picture, "The Return from Hawking."

However, there is no reason why the eagle should not be carried to the field on horses, or even on asses, as was actually done in Africa. And as to the fact of the bird being put to such a use, the eagle is specially mentioned as the bird of a king.

The power of the eagle in pursuit of its prey is terrific. It seems to hurl itself like a cannon-ball upon the doomed creature, and often strikes it dead before it reaches the ground. This is accomplished by the force of its projection, concentrating itself on the talons, and especially on the hinder claw. Before the terrific power of this claw bones are fractured, although defended by feathers, the body is ripped up, and the life extinguished, although the prey is flying away in the same direction as its pursuer.

When the eagle has struck his quarry he is thrown into the most violent state of excitement, and, until the captured creature is quite dead, fills the air with his triumphant screams. Even a hawk can utter sounds that seem to penetrate the very ears, but the scream of the eagle is far more piercing. All rapacious animals appear to be possessed with a sort of delirium when they have attained their object, and to be for a while insensible to anything but the exultant delight of their success.

To take a familiar instance, every one knows how savage a cat becomes when she has caught a mouse, how she growls, how her eyes sparkle, and how fiercely she spits at any one who may attempt to

take away her prey. And in many animals this state of fury exists as long as the prey remains uneaten. My own cat, for example, is as gentle and amiable a being as could be wished. He allows me to take any liberties with him, such as suspending him by the tail, or tossing him across the room, and usually acts more like a dog than a cat, even following me about the house, or fetching me down-stairs to give him some meat.

But if he catches a mouse or a bird he is quite dangerous to approach, and no one unacquainted with his peculiarities would venture to touch him; and this state of fury continues as long as the mouse or bird remains. I once kept him in this excited state for a very long time by skinning a sparrow and tying the skin firmly over an old glove rolled up so as to assume in some degree the shape of the bird. Puss worried the skin for a long time under a chair, and at last carried it away into the cellar, where I heard him gnawing, tearing, munching, and spitting for some two hours afterwards.

It is rather curious that when an eagle has seized its prey it never looks at it until it is dead, but sits screaming and driving its claws into the poor creature until it ceases to struggle. In Lloyd's "Scandinavia" there is an interesting account of the destruction of a cat by a domesticated eagle.

"A peasant, having observed an eagle soaring near to his homestead in search of prey," so runs the story, "and having no gun at hand, determined, nevertheless, on attempting his capture. For this purpose he threw a sheepskin, the woolly side outwards, over his shoulders, and thus equipped crawled on all fours about the spot haunted by the bird; and his wile had the desired effect, for no sooner did the eagle perceive him than, imagining him a veritable sheep, down he pounced upon his back. Being quite prepared for the onset, the man at once embraced the eagle's outstretched wings with his

arms, and thus in triumph bore him home, where a bystander quickly knocked the enemy on the head. But the poor fellow suffered severely for his ingenious though adventurous ruse, for in his death-struggles the eagle not only drove his talons through the sheepskin, but deep into the man's flesh, from whence, when life was extinct in the bird, it was found impossible to extract them without having recourse to the knife."

A somewhat similar story to the foregoing is told by Dr. Willman.—"During the autumn of 1846," said that gentleman, "whilst residing with Mr. P. O. Andersson at Kjeffinge-Mölla, the innkeeper of that village, Holmberg, purchased an eagle of a peasant who was on his way to the town of Lund, where he had purposed taking him for sale. On questioning the man as to the way in which he became possessed of the bird, he stated that during the preceding day, which was cold and misty, and whilst occupied in hewing timber in the forest, he was all at once assailed on the back and shoulders by an unseen enemy; that on turning his head about he found it to be the eagle in question, which, without injuring him, had driven his sharp talons through and through his thick sheepskin coat. Seizing hold of a stick he forthwith commenced belabouring the bird about the head, and continued to do so until such time as life appeared to be extinct, when, withdrawing the claws from his clothes, he walked off with his prize towards home. On his way, however, the bird began to revive, and by the time he reached home had quite come to itself again.

"Subsequently," Dr. Willman went on to say, "Holmberg caused a capacious cage to be constructed for the accommodation of this eagle. One day it happened that a son of his went up to the cage, and by gestures and otherwise so irritated the bird that, with the rapidity of lightning, he struck one of his talons between the bars into the

tormentor's hand, and with such force that the middlemost claw not only passed clean through the hand, but a quarter of an inch of it or more protruded on the other side. Happily, however, a servant-man, hearing the cries of the boy, who was almost beside himself with pain and fright, hastened to the rescue, and soon succeeded in freeing him from his ferocious assailant.

"After this catastrophe, Holmberg, who had several smaller children, fearing to retain the eagle longer on the premises, gave him to Mr. P. O. Andersson, Kjöflinge-Mölla, where I had ample opportunity of studying his habits. Here we fed him partly on the entrails of calves and other animals slaughtered for the use of the family, and partly with pigs that had died from natural causes, as also on rats, crows, and magpies, which I shot for the purpose. One day the entrails of a calf were given to the eagle. After the bird had satisfied his hunger I went up to the cage, which was very roomy, and observed that he sat on the uppermost perch, and that a full-grown cat, which had passed between the bars, was eating with great appetite of the refuse of the offal. I remained passive, to see how the matter would end.

"The eagle, with his head inclined downwards, seemed narrowly to watch the movements of the intruder; but when the cat had finished her meal, and was about to move off—one-half of her body being already outside the bars of the prison—the royal bird, with incredible quickness, struck one of his talons into her side, and drew her back into the cage again. The cat made a most desperate resistance, and attempted to bite her assailant's leg, on which the eagle seized her by the head with one talon in such a manner that a claw penetrated each eye, and forced both out of their sockets; and in this posture the bird remained until grimalkin was dead. But as all this took place

near to the side of the cage, and as the eagle—probably from fear of interruption—would never touch anything unless he was in the centre of the cage, he therefore withdrew the talons inserted in the cat's head, and, with the others still deeply imbedded in his victim's body, walked or rather stumped away with the cat to his accustomed feeding-place.

“His first act was to draw out the tongue, which he immediately devoured; afterwards he made an aperture with his beak below the breastbone, and ate part of the lungs; but the remaining part of the cat was left until the following day, when he finished it. Several times when the eagle was supplied with a dead cat I made the remark that, provided the jaws of the cat were not immovably fixed, he, in the first instance, always devoured the tongue. A dead pig was his favourite food. He was also contented with rats, and when very hungry would not tear them in pieces, but swallow them whole. This I saw him do with nearly full-grown individuals of *Mus decumanus*. Once he escaped out of the cage, and whilst being recaptured received much mal-treatment, from which he seemed never fully to recover, and one morning, towards the spring, he was found dead in his prison.”

This account is not only amusing, but also instructive, as it shows the craft of the eagle as well as its mode of action when securing and devouring its prey. There could hardly have been a more perplexing antagonist to the eagle than the cat, for the latter animal is peculiarly fitted by nature for resistance to such an attack. If any of my readers have attempted to catch a savage cat they will fully appreciate the agility as well as the cunning of the bird.

The cat, on such an occasion, appears to be endowed with a power of dispensing with its spine, and of becoming a being composed solely of teeth and

claws. My left hand was once laid up for several weeks in consequence of a bite inflicted by an angry cat whom I had captured, and whose teeth contrived to meet in my left thumb while I was securing her claws in my right hand.

It is hardly possible to imagine a more ingenious or a more effectual mode of putting a stop to such proceedings than that adopted by the eagle.

Again, we find that the account of the eagle's mode of destruction is corroborated, for the bird killed the cat entirely by the claws, not bringing its beak into operation at all until the animal was dead.

CHAPTER II.

EAGLES—CONTINUED.

Structure of Feathers.—Various Descriptions of Wing.—Nomenclature of Feathers.—Changes of Plumage.—Dr. Watts on Natural History.—Muscles of Wings.—Man formerly a Winged Animal.—Nest of the Eagle.—Ferocity of Parent Bird.—Story of Lakdar.

FEATHERED friends are the object of our present examination, and, in consequence, the feathers of our friends must be examined, as well as the friends themselves. There is a proverb that “fine feathers make fine birds,” which, as far as it goes, is true enough; but on a careful investigation we feel very much at a loss to tell whether any one feather can be finer than another, for the beauty of the feather will very much depend on its adaptation to its use. Accordingly, although the loose waving filaments of the peacock’s train are very beautiful, yet, when we compare them with the firm, closely-set, knife-like vanes of the eagle’s wing feather, we should hesitate a long time before we could award either the palm for beauty. Yet at first sight there is no comparison at all—the feather of the peacock being resplendent in the colours of the rainbow, while that of the eagle is only of a dusky brown.

These feathers are so very curious, that before proceeding further we will devote a short time to them alone.

True feathers are to be found only on birds, and therefore the very presence of feathers is sufficient to mark out the bird from any other vertebrate animal. There is only one bird which appears to form an exception to the general rule. That is the cassowary, whose

body is covered with long black filament that looks very like horse-hair, or more closely resembles split whalebone; yet these apparent hairs are in reality feathers, being composed of the shafts without visible vanes.

In order to point out the different kinds of feathers upon a bird, it is necessary that each feather should be known by its own name. This appears to be rather a hopeless task, but is in reality very easy, as ornithologists have arranged the plumage into districts on so simple a plan, that when the method is learned each feather can be named without difficulty. The feathers are divided into two kinds, principal or quill feathers, and inferior or coverts; the coverts taking their names from their locality, because they *cover* certain parts of the body, while the principals are mostly used for progression.

We will first take the wing of any bird, say a sparrow. The wing-skeleton of a bird is composed of the same bones as the arm of a man; and, in order to show how the feathers are placed, we will suppose the right wing of a bird to be stretched out like a man's arm, the fingers to be applied closely to each other, and the thumb a little separated.

Now, if we begin with the quill feathers at the end of the wing we shall find that ten of them can be traced back to the hand and fingers. These form the "primary" feathers, and in the arrangement of these mostly depends the bird's style of flight.

If they are long, stiff, and pointed, we at once know that the flight is swift and active. Such feathers are to be found in the swallows and humming-birds. But if they are short, rounded at the extremity, and concave below, the flight will then be comparatively slow and laborious. Such is the case with our sparrow, and to a greater extent with the magpie. Then, if they are large, tolerably equal, and firm, the bird flies easily, powerfully, and steadily. Most of the crow family have this kind of wing. If, again,

they are large, concave, and fitted with soft vanes, as in the owl, then the flight is easy and noiseless. But if these feathers are short, pointed, and possess hardly any vanes at all, as is the case with the cassowary and other similar birds, then there is no flight at all. So that from a short description of the primaries it is easy to determine what kind of figure the owner of them would make in the air.

We now pass to the second part of the arm, that from the wrist to the elbow.

From this portion proceed the next set of quill feathers, appropriately called the secondaries. These vary in number, shape, and size. In some birds they are very prominent and distinct, while in others—in the sparrow, for example—they merge into the pinions so imperceptibly that there is no apparent distinction between the tenth primary and the first secondary.

Lastly, a third set, called the “tertiaries,” spring from the portion of the wing between the elbow and the shoulder. These are very variable, and often mark out a species very plainly. In general, they are much shorter than the primaries, and indeed are merged into the little feathers that cover the exterior surface of the wing. But in some birds, such as the plovers, they are very long, and quite alter the shape of the wing. In the cranes the tertiary feathers are developed into long drooping plumes, almost reaching the ground. These are the quill feathers of the wings, and they are the only quills, with the exception of those of the tail, which are called “rectrices,” because they direct the flight of the bird, just as a rudder directs a ship, the wings acting the part of the sails.

The thumb has a little wing to itself, called the winglet.

The inferior feathers of the wing are named according to their position. Along the upper surface run the lesser coverts in two or three rows, and below them the single row of the greater coverts, sweeping across the wing, and generally merging into the ter-

tiaries by almost imperceptible gradations. The object of these coverts is to guard the quill portion of the larger feathers, as well as to increase the space and give a firmer stroke to the air. The under surface of the wing is covered with a thick layer of small feathers, called the under coverts.

With regard to the tail feathers, the little feathers that guard their quill portions above are called the upper tail coverts, and those below are named the under tail coverts. In some birds these assume elegant and brilliant forms. The well-known marabout feathers are the under tail coverts of the marabout stork, a bird resembling the adjutant; and the magnificent train of the peacock is composed of the tail coverts, the tail feathers themselves being short and stiff, as is seen when the bird spreads its train. Such is also the case with the long tail feathers of the pheasant.

The feathers of the other portions of the body are named in a similar manner. For example, the tuft of feathers that shields the ear is called the "ear covert," those that guard the shoulder are named the "scapularies," and so on.

The best way of examining the feathers, especially those of the wing, is to begin with the upper and under coverts, and after completing the examination to strip off the under coverts, thus exposing the mode in which the quill feathers are inserted. By so doing the secondaries can be clearly distinguished from the tertiaries, a matter which is not always easy as long as the coverts hide the insertion of the quills. But when the under coverts are removed, each quill feather can be followed to its insertion, and therefore at once assigned to its proper place.

The size of the wing itself appears disproportionately small when compared with the spread of the feathers, and it hardly appears possible that every quill feather should not be torn out of its socket by the resistance of the air.

But if the wing is stretched to its full extent, as is the case when a bird rises into the air, a strong and elastic fold of skin is seen to stretch itself along each division of the wing, and to support the quills which run through it, just as pins run through the folds of the papers on which they are ranged for sale.

I fear that this description is not very interesting, but it is necessary, as it is impossible to give or read a description of a bird without reference to some of these external forms. As feathers are necessarily of a light and fragile material, and are exposed to many chances of injury, they would soon be so damaged as to take away the possibility of flight. Even in a single year the feathers suffer much in birds that lead an exposed life, such as the rooks, whose wings may be often seen sadly tattered and torn as they slowly wend their way through the air.

Therefore some process of renewal is necessary, and this end is better attained by the entire change of feathers than by the renovation of their parts. And so remarkable is this change, that there are many birds whose whole appearance changes at each moult, as the renovating operation is called. In some the change is so complete that the same bird has been called by three different names, according to its variation in plumage, and has accordingly been set down as a kind of ornithological Cerberus, three birds at once, much to the confusion of naturalists.

This moult is rather a dangerous period of a bird's life, and it is remarkable that in those birds which are artificially taught to whistle tunes, the song is often entirely forgotten at the period of the moult, and has to be taught afresh.

Many birds whose plumage is of the brilliant and imposing order appear to feel quite ashamed of themselves when the moulting period arrives, and they are deprived of those gorgeous feathers in which they pride themselves. Now Dr. Watts may be pathetic on the subject of "Pride in Clothes," and indite

verses accordingly; but he seems to lay all the pride upon the human race, whereas, if he had paid as much attention to the animals as to the little girl in the speckled frock, "admiring of the same," he would have found that pride is not entirely a human failing.

But Watts is not very perfect in his zoology. It is true that "dogs delight to bark," but as to the biting, I deny that they are given to that delectation unless they are provoked. Also, although "bears and lions growl," I do not think that they are in the habit of fighting, either against each other or amongst themselves. I never heard of a bear-fight or a lion-fight except in the arena, and there we hear of quite as many man-fights. And again, there is a six-line stanza on the ants, or emmets, pointing out their industry in gathering up corn on a sunshiny day, and for winter laying up their stores. Emmets know better than to gather up corn which they could not eat, and to fill up their houses with useless stores. They are creophilous not sitophagists, to use a learned phrase. So with the pride in dress.

Why, the peacock is quite as proud of his clothes as the vainest lady or gentleman who *could* have excited the ire of Dr. Watts. He won't condescend to take the trouble of displaying his finery unless there are plenty of spectators before whom he can strut backwards and forwards, rustle his array of quills, like the wind stirring among dry leaves, and, in fact, assert his superiority over the inferior sex, who are content to look on and admire at a respectful distance.

Then there is the Whidah bird, or widow bird as he is unjustly named, seeing that a gentleman is seldom a widow, and it is only of the male that this propensity is recorded. The bird has a very handsome long tail, of which he is very proud. But the moulting season comes and takes a fancy to the poor Whidah's cherished tail, whereupon the bird instantly changes his demeanour. As long as he had that ornament he

was active and sprightly, hopping about and twisting himself from side to side, so as to exhibit himself to the best possible advantage.

But the ruthless moulting season treats him as badly as Nannie treated Tam O'Shanter's mare—his tail is carried off, and with his tail he loses his vivacity. So ashamed of himself does he seem to be, that until he can again exhibit a similar ornament he sits drooping and downcast in a corner, much as the daw might have acted when despoiled of his borrowed plumes.

The muscles to move the wings must necessarily be of very great power. If we take a dead bird, spread its wing, and beat it against the air, it seems to offer no resistance at all, and the fact that the bird is upheld by a succession of such strokes, appears almost inexplicable. But, on examining the muscular development of the bird, the difficulty vanishes.

The proper way to do so, is to strip off the skin, which is easily accomplished by making a small cut in the skin, and turning the bird out of it. The muscles then come into view. The most important of them is the enormously developed muscle that pulls the wing down and strikes it against the air. This is so large, that supposing a man to be possessed of a similar muscle, it would commence at his shoulders, spread over half the breast, and run downwards until it reached the lower extremities, while it would be nearly a foot in thickness on the breast.

There are, necessarily, two of these muscles in a bird, one for each wing, and they are separated as well as supported by a deep bony ridge that runs along the breastbone. It is this muscle that adheres to the wing when we carve a fowl.

Following up the wing to its point, we shall find many other muscles, each terminating in its own tendon, and performing its own work. These can be easily separated from each other like the strands of a

rope, by passing a blunt point under them, the handle of a scalpel for instance, and working it up and down until each muscle is completely separated from its neighbour. Then, by pulling the tendons with the forceps, the object of each is seen by the movements which it communicates to the wing.

It will then be seen that the object of several of the muscles is quite secondary, and that their duty is to rotate the wing as it returns from the stroke, so that it comes edgeways against the air; otherwise, the bird would not get on at all, for the stroke would only drive it backwards and forwards, instead of sending it in the proper direction. The movement is a very curious one, exactly analogous to the "feathering" of oars in rowing, and cannot be seen properly, unless the wing has been previously denuded of its feathers.

These muscles perform the office of bending or relaxing the hand part of the wing, and also aid in giving it that peculiar turn to which I have already alluded.

There was a time when the best existing definition of a man was, "Animal bipes implume," a two-legged, featherless animal. But I remember an argument held by a boy, which would go to prove that even that definition was entirely false.

"What is the chief difference between birds and men?" asked the tutor. Boy reflects, and presently comes answer.

"Don't know, sir."

"Think," says the tutor, "try again."

"Don't know, sir."

"Why, look at a sparrow, and then at a man; is there no difference in their appearance?"

"Don't see any, sir."

"Not see! has not a bird wings, and a man has none?"

"Yes, sir, but men used to have wings."

Tutor jumps out of his seat at this astounding

reply, and stares helplessly at the boy. "Men *used* to have wings," says the boy again.

The tutor thinks that the boy has read the "Vestiges of Creation" upside down, or lost himself in some maze of philosophy, and calls on the boy to explain.

"I saw it in the History of England," replies the boy

"WHERE?" said the tutor. "Go on."

"Why sir, it says, in the History of England, that James II. took flight into France. He couldn't have taken flight if he hadn't had wings."

Now this was really pure simplicity, and not a specimen of astounding impertinence. The boy had read that History of England very early, and the primary meaning of the words "took flight" had fixed themselves so strongly in his mind, that no other interpretation came across him.

The nest of the eagle is always built in some inaccessible place, either on the top of some lofty tree, or on a crag. The latter, however, is most usual. The nest is very inartificially constructed, and is made mostly of sticks of various sizes. The number of the sticks used is very great, and the nest is in consequence a conspicuous object. Rushes or heath are employed to line the nest, and upon the lining two or three eggs are deposited.

When the young are hatched, and can use their beaks, the large nest acts as a platform, on which are strewed the carcasses of various animals, mostly hares, rabbits, and grouse. Sometimes, but not often, young lambs are carried off to the eaglets, and even foxes have been seen in their larder.

In general, the nest is supplied with game much faster than the young can eat it, and, in consequence, the remainder is left to putrify, and causes the neighbourhood of the nest to be visited with an unbearable stench. There is one case recorded, where an eagle had built its nest within the reach of man,

and used to act as an involuntary purveyor to a neighbouring family. The eagle, for example, would bring home a hare, put it in the nest, and go off for another. Then a man would come, and take away the hare. The eagle, on coming home, deposits some other animal, and, finding that the young have already finished the hare, goes away again in search of more prey.

The young eagles do not remain very long with their parents, but soon after they are fledged, are turned out of the nest, and have to gain their own living.

The plumage of the young bird is dissimilar from that of the adult, and has caused the same bird to be known by different names, according to its age. For example, the plumage of the young of the golden eagle is darker than that of the adult bird, and its tail is barred with white at the extremity. In this state it is the ring-tailed eagle, or the black eagle: indeed, the same species has been known by no less than five denominations during the first three years of its existence. Even Bewick gives two figures of the bird, under the names of golden and ring-tailed eagle.

The eagle defends its young with the usual pertinacity of mothers under such circumstances, and as it is possessed of such strength and agility, it is a most formidable antagonist. There are many descriptions of encounters with an infuriated eagle, and in all, the bird proved itself worthy of its reputation.

In one case, the fowler had descended by means of a rope to the eagle's nest, which was placed near the summit of a precipitous rock. He seized the eaglets and was making his escape, when the parent bird came back, and, uttering a scream of anger, rushed at the despoiler. The man was provided with a short sword, by means of which he kept the eagle at bay for some time. At last, while aiming a furious

stroke at his feathered enemy, that was dashing at his head, he felt a smart jar on the rope that sustained him, and on looking upwards, saw that he had half severed the rope with a blow of his sword. He, however, escaped.

I have already mentioned that, when taken young, the eagle can be tamed and trained as readily as a hawk, and used for the same purpose. As a proof of this, I extract a passage from Jules Gerard's "*La Chasse au Lion*." I must first mention that the Algerines are especially tenacious of hawking privileges, and no one is allowed to train or to fly falcons, who is not a man of known power and consideration. The story was related to M. Gerard by Lakdar, one of his attendants, and affords a good instance, not only of the powers and capabilities of the eagle, but of the semi-civilised habits of the Algerines, or Moors, as Gerard calls them.

"In the course of the year when Algeria fell into the power of the Christians, my cousin Lakdar and myself took up the idea of puzzling a cheik of the Ouled-Bou-Ghanem, a neighbour of ours, who, although a mere nobody, took upon himself to rear and train falcons.

"For this purpose we caught two young eagles, of whose nest we knew, and taught them to chase young falcons, which our herdsmen brought us every day.

"As soon as we judged our birds sufficiently trained and accustomed to the noise of men and horses, we sent a trustworthy friend among the people of the cheik to find out where and when he would begin his chase. Having learned the place and day, Lakdar and myself set off before daybreak, driving before us an ass which carried our eagles hooded, together with some falcons to lure them back in case of necessity.

"The cheik and his company did not arrive until long after us at the Oued-Mellègh, where they intended to chase the bustard. As the tamarinds which bordered

the stream permitted us to follow the chase without being perceived, we regulated our pace by that of the hunters.

“Presently, a flock of bustards took wing before the horsemen who were beating the plain; four falcons were successively loosed, and a bustard was instantly separated from its companions and vigorously attacked.

“Our eagles, when released from their hoods, were not long in perceiving the chase, towards which they directed their flight, at first heavily and in a straight line, but afterwards with greater swiftness, and in spiral curves, which brought them nearer together as they ascended.

“After having tied our ass to a tamarind, we walked up the stream in order to get a better view of the affair.

“The bustard, separated from its companions, and, as I have already said, vigorously attacked by the four falcons together, had no means of safety left except by keeping them below itself.

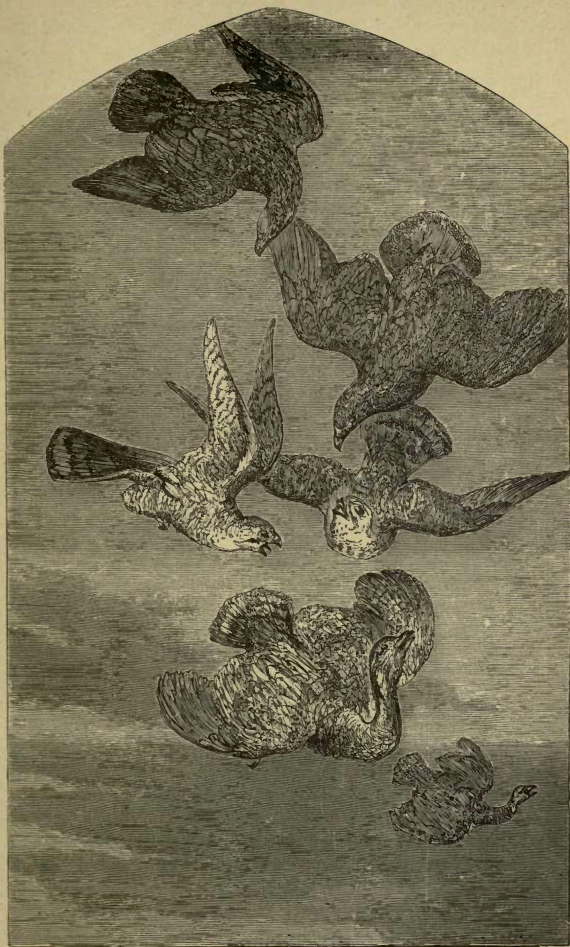
“For this purpose it rose vertically to such a height, that it looked no bigger than a pigeon, while the birds so eagerly pursuing it, appeared hardly larger than grasshoppers, and finally disappeared entirely.

“The two eagles, after having arrived at these lofty regions, were so confused with the chase that it was soon impossible to distinguish them from the other birds.

“The cheik and his band had stopped in the plain, their eyes fixed on the sky, awaiting like ourselves the issue of this aerial strife.

“Suddenly we thought that we heard from a great distance piercing and repeated cries; and in a short time we could see a dark body increasing rapidly in size as it approached, sometimes dashing about furiously, and sometimes descending straight towards the lower regions.

“We were then able to recognise our eagles, who



BUSTARDS, HAWKS, AND EAGLES.

with outstretched wings permitted themselves to be dragged downwards by the weight of the bustard, which, with closed wings and drooping legs, fell towards the earth without showing any sign of life.

“In vain we looked for the falcons that belonged to the cheik—they had disappeared. Our entire attention was then directed towards the horsemen.

“At the moment when the bustard and the eagles fell hissing into the midst of a large circle formed by the cheik and his troop, a loud cry of ‘treason’ froze us with terror.

“We then remembered, but too late, that in the haste with which our birds had been loosed, the jesses had been permitted to remain on the feet of one of them. Several men dismounted, and arranged their mantles so as catch the eagles without being wounded.

“There was nothing for us now but to fly, and we took to our heels as fast as we could, never even thinking of our ass, which, after all, turned out to be the means of saving my life that day.

“We had run for nearly an hour, keeping up the course of the stream and taking care not to leave the trees which bordered it, when we saw four horsemen barely two hundred yards behind us, and a little further off the whole band of the cheik, which followed on our track at a trot and a gallop.

“Flight was now out of the question, and we looked for some plan of hiding ourselves.

“Lakdar chose a tuft of tamarinds and briars; as for me, I got into the bed of the stream, into which I crept up to my neck in water and hid my head under the herbage that hung over the brink.

“I was hardly fairly installed in my hiding-place, when I heard the step of horses and the voice of a rider who called to the people of the cheik, ‘Come to this side, we are on their tracks! They are plain as day. There are the two sons of dogs together!’

“A noisy gallop and the neighing of horses heated

by a long run announced to me the arrival of the cheik and all his train.

“ ‘Let ten men,’ said the cheik on his arrival, ‘push forward until they can find no more traces. Then let them stop and guard both banks. You others, my children, dismount, take your pistols in your hands, follow the steps of these rascals, and bring them to me alive if you can.’

“ On hearing this order I saw that it was all over with Lakdar; but my position being better than his, I preserved the hope that I might survive to avenge him.

“ Only then I discovered that my feet were sinking in the mud, and that the water, which at first hardly covered my shoulders, was beginning to wet my lips.

“ There is a saying that he who never knew fear is not a man. I was man enough that day, for I was horribly afraid, not so much of the threats of the enemies that were hot on our pursuit, but of being drowned.

“ I was roused from my personal fears by a pistol shot followed by imprecations and several other reports.

“ My cousin, seeing himself discovered, had discharged his pistol at the group which surrounded him, and which, despite the prohibition of the cheik, could not restrain themselves from returning the compliment.

“ Loud words, which I could distinguish in the midst of the hubbub that followed, told me that Lakdar was not dead and that they were dragging him to the cheik.

“ I could restrain myself no further, and desiring, at the risk of being taken, to know what would become of him, I was just on the point of quitting my retreat when two men jumped into the bed of the stream.

“ ‘Look! there he got down!’ said the first, pointing to my steps on the sand.

“ ‘He entered there,’ said the other, pushing his

way to the edge of the stream, where I kept myself immoveable at ten paces from him, and peeped at him through the grass that covered my head.

“‘It is curious,’ continued the last who had spoken, ‘I cannot see any more traces in the bed of the stream. Surely he could not have crept in there!’

“Just at this moment I heard steps above my head, and a voice saying to the man who was so close to me, ‘Mohammed, the cheik sent me to fetch you, for none of the horsemen has so good a knife as yours.’

“‘What do you want it for?’ asked he.

“‘To cut off the head of the dog whom we have just caught,’ answered the messenger.

“The prospect of cutting off a man’s head got the better of the ardent research to which they had just before been devoted, and drew them away immediately. Thus I was delivered from the most fearful position in which I have ever found myself in the course of my life.

“After what I had heard, it was evident that my cousin was going to lose his head, and that I could do nothing to help him.

“As I felt sure that the men who had just left me would come back after the execution, and as it was impossible for me to find another hiding-place, without leaving traces behind me, I made up my mind to stay where I was.

“A root which I perceived under the bank above my head enabled me to suspend myself for a moment, and to take up a position that was not quite so dangerous as the former.

“After having heard shouts and noisy laughter excited by the triple execution which took place behind me, I fancied that I could distinguish the steps of horses hastening away from the stream, and after a while I could hear nothing at all.

“Time passed away, and with it the sun, and after a while I could see several stars twinkling in the sky.

"I got out of my retreat quietly, and carefully mounted the bank of the stream.

"I looked and I listened; nothing—no noise except the croaking of the frogs, no living being but myself, except some jackals that were prowling round the body of Lakdar, whom I found horribly mutilated, and flanked by the two eagles who had been decapitated as well as himself.

"After assuring myself that I was quite alone, I wrapped up in my burnous the head and body of my cousin, and lifting him on my shoulder, directed my steps towards the spot where we had hidden our ass that morning.

"I found him in the same place, browsing the grass that grew at the foot of the tamarind to which he was tied. I availed myself of the cord that surrounded my head to tie my precious burden securely, and then struck across the plain in order to gain a path which would bring me before daybreak to our douar.

"I had travelled nearly four hours, without having met with anything, although I was constantly followed by some jackals who were allured by the smell of the blood, when suddenly my ass stopped short, pricked its ears, and began to tremble in every limb.

"Just at that moment I caught sight of two eyes shining like burning coals, exactly in my path, and not far from me.

"As I was well accustomed to these sort of adventures, I set myself to cutting the bands which held the corpse of Lakdar on the back of the ass; and, again lifting him on my shoulders, went off across the plain, leaving my poor beast positively nailed to the earth with fear.

"I had hardly gone a hundred steps, when I heard a sound like the fall of a heavy body which is violently cast to the earth; then a kind of growling, and then nothing.

"The lion had accepted the sacrifice which I had just made him, so I reassured myself, and by

making a large circuit, regained the path which I had left.

“Not long afterwards I met some of our relations on horseback, who had come to look for us. After they had heard my account of the event of the past day, they wanted to set off instantly to revenge the death of Lakdar.

“However, I made them understand that there was not a sufficient number of them, that I was unarmed and on foot, and, moreover, that they could not leave the body of our friend behind.

“So one horseman laid across his saddle the bur-nous which contained the remains of Lakdar, another took me up behind him, and we regained our douar before any one was up.

“On the evening of the same day fifty chosen horse-men, every one of whom was a man of note, followed in the steps of the enemy's horses, and dismounted close by the smala of Lakdar's murderer.

“There were great rejoicings going on, in honour of the late execution. The couscoussou was served, so that we arrived just in season.

“The dogs gave the alarm at our approach, and we were accosted by several servants, who seemed much astonished at seeing such a number of guests arriving at once.

“While ten horsemen were strangling these rascals with the camel cords that surrounded their heads, the others arrived before the cheik's tent and sabred the attendants and the inferior guests who had to wait outside for the remains of the feast.

“All this time, I left my companions to themselves, and thought of nothing but finding the cheik, whom I intended to kill with my own hands.

“The approaches to the tents once clear, I was the first man to spring into the interior, where a dozen grandees sat with the cheik in a circle, preserving complete immobility.

“A quarter of an hour afterwards their heads were

ranged in order round the dish of still smoking cous-coussou, and the fifty horsemen re-entered their respective douars, driving before them an immense herd of cattle, and loaded with a considerable booty.

"All this passed without a single shot and almost without noise, so that the douars that were in the neighbourhood of the cheik's smala, only learned our *coup de main* too late to give any assistance.

"Since that day, until the arrival of the French, who put an end to hostilities, a good many heads fell on the borders of the two tribes, but nobody ever saw any falcons except our own."

CHAPTER III.

EAGLES—CONTINUED.

The Eagle emblematised by various nations.—Ferocity of Bird descending to its Feathers.—Eagle tormented by Humming-birds.—Skua Gulls attack Eagles.—The Biter bit.—Combat between Ospreys and Eagle.—The Wings used as Weapons.—Eagle's Skeleton.—Eagle-traps.—Eagle ignominiously killed.—Its Power of resisting Hunger.—“Odd” Eagle.—Eagle used as Food.—Voice of the Eagle.

ALL nations, from the ancients to the present day, have displayed a great predilection for the eagle. It is used as the national emblem, as the appropriate ornament for the national flag, and as the stamp on the national coin.

The poor bird is really very badly treated; it is seldom represented in its true form or its true colours. Some nations blacken it, some cut it down the middle and spread it abroad, some flatten it, while others combine the operations, and further insult the royal bird by placing a round crown on its long head, hang a chain round its neck, and weary its claws with a sceptre. America certainly takes the eagle as it is, and keeps it as the national emblem, uncrowned, unsceptered, unsplit, unblackened, and unflattened.

Perhaps, of all nations, the American Indians pay the greatest reverence to the eagle, and this reverence extends throughout the savage tribes of America, from north to south. The Aracaunian Indians actually worship the eagle, considering it as a kind of demi-god presiding over the welfare of their nation.

The fact of the eagle-adoration, or ætolatry, as the very learned might call it, was witnessed by Mr. E. Reuel Smith, who records the words of the Indian's

prayer. The party were on a journey, when an eagle, startled by their approach, sprung from its perch, soared round them, and then disappeared on their right. This rencontre was considered a happy omen, and especially so as the bird was seen on the *right* hand.

The Indian who had disturbed the bird addressed the following prayer to it,—“Oh, Namcu! Great Being! Look not upon us with thy left, but with thy right eye; for thou knowest that we are poor. Watch over our children and brothers; grant us happiness, and allow us to return in safety from our journey.”

It is curious that these savages should have much the same ideas of the eagle as we find were held by the civilised Romans. The Aracaunians look upon the bird as a celestial messenger, in direct communication with the Supreme Being. The Romans called the eagle the Bird of Jove; they looked upon it as his messenger, and represented it as grasping the thunderbolt in its claws, in token of its ready swiftness and obedience

The reason for this universal concurrence of feeling is evident enough. Man is naturally led to admire strength, beauty, and swiftness, and when all three are united in one creature, it would be more wonderful that he should have overlooked them than that he should have paid them rather more respect than their due. And especially would the savage mind have been struck with this bird, whose qualities exactly coincide with those which themselves strive to exhibit. The external and evident qualities of courage, strength, and fierceness, are just those that would attract the savage mind, in which the combative is always predominant.

Therefore, among savages, a man who had shown himself pre-eminently endowed with these savage virtues was permitted, as a reward, to adorn himself with the plumage of the bird whose conduct he imitated, and often to call himself by its name. And

this habit is handed on through successive generations, and, as is often the case in other matters, the custom remains, though its use and purport have long been forgotten.

The savage wears an eagle's plume on his head ; we civilised beings place an eagle on our coats of arms, and value its presence little less than our savage ancestor, though with less reason. None but the chiefs or the noted warriors are permitted to wear eagles' plumes in their head-dress, for each plume represents an enemy slain in single fight. Those who are ambitious of a plume-helmet without the daring to go through the necessary preliminaries of battle, are forced to content themselves with the feathers of the raven or some such bird. The plumage of the chief of birds may only be worn by a chief of men.

Few savages, therefore, will part with their hard-earned trophies, for the war eagle is a rare bird, and some time must necessarily elapse before the deficiency could be supplied, during which time the warrior feels himself something like a peacock who has lost his tail, or a whidah bird at moulting time. The quills are fastened into a basis of ermine, and sometimes are so numerous that the head-dress sweeps from the forehead to the feet in a torrent of radiant plumes.

Catlin found that to procure one of these highly-prized head-dresses for his collection was a most difficult task, and could not succeed until he consented to give in exchange two horses—an amount, it must be remembered, which is, among those Indians, equivalent to the value of a chief's wife.

Even to our own days lives the custom of wearing the feathers of the eagle as a mark of rank. I allude to the feathers worn in the bonnets of the chiefs of Scotch clans, the precise rank being known by the number of feathers. Three feathers mark the chief himself, his sons are privileged to wear two, while

others of gentle birth only carry a single feather in their bonnet.

It is rather singular that the destructive properties of the eagle itself should be thought to descend to its feathers. Yet the earlier naturalists tell us that if in a box eagle's feathers are placed with those of other birds, the more ignoble plumes will be consumed by those of the eagle. There may perchance be some ground for this evident absurdity. It may be possible, though I do not vouch for it, that there may be some odour or flavour in the feather of the eagle that would render it unpalatable to those pests of the museum or the cabinet, the mites, moths, and worms, and so preserve it for a longer time.

King of birds though the eagle may be—though he sits on Jupiter's thunderbolt, the only piece of celestial property that Mercury himself dared not trust in his fingers—yet is he worried and pestered by various of his subjects. Among these rebels, the skua-gull and the humming-bird are pre-eminent. But, curiously enough, the skua, a tolerably large bird, seldom, if ever, attacks the eagle unless it is supported by others of its own kindred, in which case it will mob the eagle, much as the crows mob a heron.

When several skua-gulls intend to attack an eagle, they form in line and deliver their attacks successively, in a manner that reminds us of gun-boats attacking a fort. They dare not face the bill and claws of their powerful enemy, but, dashing at him as if to strike him on the face, make a sudden sweep round, deliver the blow on his back, and then dart perpendicularly into the air. They then resume their place behind their companions, and repeat the attack until they have driven their antagonist away.

The skua will attack a man in the same way, and the traveller who unwarily approaches too near the nests of these birds is sometimes startled by receiving



EAGLE AND HUMMING-BIRD.

a smart blow on the shoulders, and on looking round sees the skua high above his head. But if he can only keep his eye on the gull, it will not venture to attack, and even if it has approached within a foot or two will suddenly change the direction of its flight, and sweep upwards out of reach.

But, when the little humming-bird attacks the eagle, it does so singly, and measures its tiny form against the powerful weapons of its foe in all the confidence of its insignificance. A skua may fear the eagle, for it affords a substantial hold for the eagle's claws, or a definitive object for the eagle's beak. But the eagle might as well try to catch a sunbeam as a humming-bird, and the little creature knows it well. A pair of humming-birds will attack an eagle without the least scruple, and a solitary ruby-throated humming-bird has been seen deliberately seated on the head of an eagle, pecking out the feathers and scattering them in a stream behind the tortured bird, which, with screams of terror and agony, dashed through the air in the vain hope of shaking off its puny foe.

The sparrow-hawk also has been seen to attack the eagle, and to escape its wrath by means of superior agility on the wing. And there is on record a curious instance of poetical retribution. Eagles are very fond of hares, and possibly from this circumstance an eagle, mistaking a cat for a hare, pounced upon it and carried it to the nest as a meal for the young. The parent bird then went away to find more food, and the cat lay in the nest half senseless from fright. Presently, however, she recovered herself, killed the eaglets, ate one of them, and got away without further damage.

The fish-hawk will also attack the eagle, but then only in company. The following account from an eye-witness gives an admirable idea of their mode of proceeding:—

“Now, to witness, as I have often done, from the

mountain tops, the osprey swoop down from the dizzy height almost level with my feet, and hear the faint whirl of arrowy-falling plumes and see the cloud-spray dimly flash through the blue steep of distance—ah, that was a sight! And then the strong bird's scream of exultation faintly heard, and the far-flash of scales that glitter as he drags his spoil to sunlight, from its dark, slumberous home, and on strong vans goes beating up towards the clouds; ah! that, too was a sight!

“But then to see deep down, that couchant tyrant, deep down below, ‘levelling his neck for flight’ (as the ‘glorious Weaver’ has it)—his war crest raised, his wings half spread, pausing for the moment on his stoop, and then one clamorous shriek of confident savage power, and see him vault—away, up, up, with a swift cleave, conquering gravitation, and go lifted on the spell of wings! Wonderful sight—that upward struggle! The fish-hawk has taken warning from the exulting cry of his old enemy, and with yet louder cries, as if for help, goes up and upward, swifter still, with vain beatings that scatter the fleece forms of clouds above me, and stir them whirling in gyrations. But no; the conqueror, with overcoming wings, is upon him, with fierce buffetings. The stirred chaos cannot hide from me, and the fisher drops its prey with a despairing shriek, while it goes gleaming towards its ravished home.

“Now, but an instant's poise while the sunlight can flash off a ray from steadied plumes, and the eagle goes, dimmed with swiftness, roaring down to catch the falling prey before it reach the wave.

“But the fish-hawk, although the mildest, the most generous and social of all the Falconidæ, still recognises that point beyond which forbearance is a virtue. When the plundering outrages of the bald eagle have been, at length, carried to an intolerable extreme in any particular locality, the fish-hawks in the neighbourhood combine in a common assault upon

the tyrannical robber. I have frequently witnessed such scenes along the coast of the Gulf of Mexico. They abound in great numbers along the estuaries of its great rivers. I remember, particularly, to have noted the greatest collection of them at the mouth of the Brazos River, of Texas. Twenty or thirty of them are constantly congregated at this place during the spring months, to feed upon the great shoals of the luscious red-fish, which then make their appearance here; though otherwise a barren and uncouth spot, it is constantly enlivened by the ærial gambols of these powerful and graceful-flighted birds, and many is the battle between them and the bald eagle that I have witnessed among the clouds at this place. They seemed to have formed a sort of colony for mutual protection, and the moment their foe, the eagle, made his appearance among them, the cry of alarm was raised, and the vigilant colonists, hurrying from all quarters, attacked the robber without hesitation, and always succeeded in driving him away.

“There was always a desperate battle before the savage monarch could be routed, and I have seen them gathered about him in such numbers—whirling and tumbling amidst a chaos of floating feathers through the air—that it was impossible for a time to distinguish which was the eagle, until, having got enough of it, amidst such fearful odds, he would turn tail, and with most undignified acceleration of flight, would dart towards the covert of the leafy forest, to hide his baffled royalty and shake off his pertinacious foes amidst the boughs, as do the smaller hawks when teased by the little king birds. I was told by the residents of Valasco, at the mouth, who, from sympathy with the fish-hawks, seemed greatly to relish the scenes, that year after year the eagles made persevering attempts to obtain a lodgment in the neighbourhood of this colony, but were always promptly repulsed and finally driven off. This,

therefore, formed a secure breeding place as well as feeding ground for these mild and amiable birds."

It is said that when the eagle hunts animals of any considerable size, it uses its wings as weapons, by dipping them in water, then in gravel or sand, and then striking its intended prey about the face until it is blinded. When the poor creature sinks under the stunning effect of the continual blows, and the blinding effects of the wet gravel in its eyes, the eagle brings its talons into play, and by them deprives its prey of life.

This may possibly be the case, for an eagle has been known to act in precisely the same manner towards mankind. Two lads had plundered an eagle's nest of the young, and were returning home with their prize, when they were discovered by one of the parent birds. The infuriated eagle set off in chase of the two lads, and aimed such rapid and powerful blows at them with her wings, which she wetted and sanded in a brook that ran close by, that, although armed with sticks, they did not make their escape without much difficulty.

And yet the skeleton of the eagle is surprisingly small, when we recollect the appearance of the bird in its living state, and if we had never seen a living eagle, or its stuffed skin, we should hardly believe that so small a bird could be so dangerous, and that through sheer strength.

But we will clothe the skeleton with its appropriate muscles and tendons, and then the wonder ceases. For the muscles are moulded like those of Hercules; they glisten through their shiny tendinous coat, which afterwards narrows into flattened shining bands that play over their bony axes like the connecting bands of an engine over their wheels and pulleys. And when we examine the pectoral muscles, occupying nearly the entire front of the bird, we no longer

wonder at the powerful blows which can be dealt by the wings to which those muscles are attached.

If Buffon had made the muscular system of the eagle the basis of his celebrated parallel, there might have been some excuse for it. But it is really singular, that in that very passage where he compares the lion with the eagle, he is wrong in almost every particular. For example, we are told that both creatures are magnanimous, and refuse to take possession of any prey which is not gained by their own exertions. Yet, both eagles and lions are caught in traps baited by dead animals, and have been seen satiating their appetite on carrion, while they keep at a distance those animals to whom carrion-eating seems more properly to belong—the vultures and the hyenas. Then, again, the same author remarks that the eagle, like the lion, seldom consumes the whole of the prey, but leaves the offal to the more ignoble animals.

Partly true, M. de Buffon, and for irresistible reasons. There are limits to the capacity of the stomach of an eagle as well as a lion, and, as a natural consequence, when the bird has eaten to repletion, it cannot, by any possibility, eat any more. Then the more ignoble animals, as they are called, come and finish what the eagle has left. But neither eagle or lion think of leaving their prey until they have thoroughly gorged themselves, and they are not in the least particular whether their dinner has been procured by their own exertions or by any other means.

As to the eagle, it permits other birds and beasts to finish the fragments, because it is physically incapable of preventing them, owing to the enormous meal which it has just made. Often, an eagle cannot fly for some time after making one of these huge meals, and there is a recorded instance of an ignominious death inflicted upon an eagle in consequence of its gluttony. The bird had been discovered by a shepherd-boy, who drove it from a dead sheep on which it was feeding. But it had devoured so much mutton

that it could not raise itself from the ground, and could only flutter and run. The boy seeing the bird in this state, gave chase, and succeeded in stoning the eagle to death. This anecdote also shows that the eagle will feed on beasts that have died of disease.

The gluttony of the eagle is turned to good account by the Highland shepherds, who catch it in a very curious but simple trap. They build a circular wall, four or five feet in height, and leave at the bottom a doorway large enough for the passage of the eagle. To the exterior of the wall, a strong noose is fixed, and arranged so as to fall over the doorway. The trap is now complete, and is baited by laying a dead sheep in the enclosure. The eagle sees or smells the bait, wheels round in the air, and finally drops upon it from above. It then eats until it can eat no longer, and, having done so, makes up its mind to go away. But flight in its present state would be very uncomfortable, and so the bird, seeing the door, walks out of it, and into the noose. Finding itself caught, it struggles and plunges, until it draws the noose tight round its neck and strangles itself.

Still, although the eagle will gorge itself to repletion when it has the opportunity, it can endure a total abstinence from food for a long period of time. A wounded eagle, for instance, voluntarily fasted for nearly a fortnight. Its leg had been broken by a fox-trap, and the bird behaved with singular resignation, not offering the least resistance when the broken portions of the bone were removed and the leg bound up, although its head was left at liberty during the painful operation. With an unerring instinct, it refused food for thirteen days, and then ate a rabbit, which it killed by a blow of its beak.

The same power of existing without food often seems to be conjoined with enormous capabilities of stomach. Lions, for example, and most of the feline tribe, can withstand very long fasts, while the same

facts may be observed in the human savage. The native Australian exists for an almost incredible time without nourishment, merely binding his "girdle of famine" tighter, in order to check the gnawing pains of hunger. But when he has the opportunity, the amount of meat that he will devour, and the gallons of water that he will drink, can hardly be believed, even by an eye-witness. No other but an eye-witness would dare to relate the tale of gluttony, for none but an eye-witness could hope to be believed.

These alternations of painful hunger and almost as painful repletion form one of the great characteristics of savage life, whether the savage be man, beast, or bird; and impress themselves on the whole creature, in the fierce, hungry glance of the eye, and in the gaunt, wiry limbs, devoid of every morsel of fat, and looking like a bundle of wires covered with skin.

Let a physiologist see but a single limb of a native Australian, and he at once pronounces it to belong to a wild animal, human though this animal be;—for it is only the animal portion that he sees, and he therefore only treats of the animal characteristics.

The thigh of an Australian savage is hardly larger than the arm of an ordinary man. Yet it is not a limb wasted by disease; for, although there is little substance, what substance is left is hard and firm, bearing about the same analogy to those of European limbs as a wire rope bears to a hempen cable. The force seems to be compressed into as little space as possible, and there is not an ounce of superfluous weight about the whole limb. It is eminently a predaceous limb, the property of an animal whose sole object in life is to pursue and catch prey, and then to devour it ravenously.

Few creatures of prey are prolific, and the eagle is no exception to this merciful and necessary law. There are very seldom more than two eggs in the nest, and if three are found it is said that two of the eggs are always females, and that one of the two be-

comes an "odd bird," never finding a mate, but spending a life of celibacy, and living to a very great age. The "odd" eagle is also said to grow to a large size, to be very ferocious in its manners, and occasionally to assert the claims of its sex, by depositing an egg somewhere on the mountains. The eggs, however, are always unproductive.

The eagle is a notorious eater, but is hardly looked upon in the light of food. Yet such is sometimes its destiny; and hunters speak of making a supper upon young eagles with as much composure as if they were young chickens. After all, the flesh of the puma is thought a great delicacy, and so there is no reason why that of the eagle should not be ranked in the same category; for, among quadrupeds, the felidæ occupy much the same position as the hawks among birds. Laying aside the indispensable differences of form, their habits and instincts are very similar, their food is of the same character, and obtained in the same manner. So, if a carnivorous animal is found to be excellent food, why not a carnivorous bird?

As to its voice, perhaps the less said in its praise the better. It is a rough, sharp, ear-piercing cry, well calculated to strike terror into the hearts of less powerful birds, but not pleasing to human ears. Yet it is suitable to the wild, rough rocks among which the eagle loves to dwell, and harmonises well with the scenery. Much in the same way, the bagpipes, although most detestable in civilised society, are really well adapted to the Highlands, where they were invented, and for which they were made. Everything in its own place. Put the eagle on a precipice, or the bagpipes among the hills, and each is in harmony with surrounding objects. But if they are brought into places with which they were never intended to have any connection, it must be expected that the sense of hearing would be as much offended by their discord as that of taste would be in eating vinegar with pine-apple, or sugar with oysters.

None of the vultures or hawks have any power of song, nor are their voices even melodious, except in one solitary instance, that of the chanting falcon (*Melierax musicus*), a bird resident in South Africa, and of which five or six specimens are in the British Museum. But the song of this exception to the general rule is not much of a song after all, and only of short duration, so that its reputation is only based upon singularity, and not upon excellence, just as an oyster gained great fame by whistling, and a canary bird by talking, although there were no particular powers of melody in the one or of conversation in the other.

Here I close the history of the eagles. It would be easy enough to fill a volume with accounts of these grand birds, but there are two reasons for not doing so. The first reason is, that some twenty more birds are awaiting their turn to be introduced to the public, and the second, that, although stories of eagles are plentiful as blackberries, they are not all quite so authentic. As Mudie observes, "I found that eagles had been a sort of 'lion' with wandering tourists, and that any number of their achievements might be had cheap."

The same reasons have prevented me from inserting any "elegant extracts" from the various poets who have made eagles the theme of their song.

So we will now take our leave of the eagles, and pass on to the vultures.

CHAPTER IV.

VULTURES.

Pseudo-British Birds.—Frauds on Naturalists.—The Representative System of Nature.—Ghoules and Vultures.—Battle between Eye and Nose.—Structure of Eye.—Kestrel.—Experiment with Vultures.—Instinct.—Voracity of Vulture.—A “Game Flavour.”—Useful Property of Charcoal.—Wing of Vulture.—Its graceful Flight.—The Condor.

THESE strange and repulsive birds are no real inhabitants of the British Isles. It is true that they are admitted into the catalogue of British birds, because a few have been seen in England at distant intervals. But I very much doubt whether such an event affords sufficient foundation for granting them the privilege of Britons. I do not see that if I, for example, were wrecked off the coast of Madagascar or the Feejees, I should thereby be constituted a native of those isles. And I contend that no bird has any right to be considered as a British bird unless it was hatched or generally resides in the British Isles.

We do not call a gull an inland bird because it has occasionally been seen in places distant many miles from the sea; and very many more gulls are found in the midland counties of England every year than vultures in ten years throughout the whole of the British coasts. I say that the vultures have no more right to be called English birds because they are occasionally seen on the English coasts than a daw to be reckoned a religious bird, to borrow Hood's simile, “because it keeps a-cawing from a steeple.”

I do believe that the greater number of these pseudo-British birds have been thrust into the

catalogue by interested persons—the dealers in eggs for example. For now no collection of British birds' eggs is considered complete without those of the griffon vulture (*Gyps fulvus*), the Egyptian or Alpine vulture (*Neophron percnopterus*), the white spoonbill (*Platalea leucorodia*), the American swan (*Cygnus Americanus*), and some thirty more, among which is positively the pelican (*Pelecanus onocrotalus*), because in 1663 one specimen was seen in England, which was supposed to have escaped from the king's mews!

Of course it is quite impossible to find the eggs of these birds by personal search, and therefore, if the cabinet is to be considered as complete, the eggs must be purchased, to the great detriment of the oologist's pocket. I speak feelingly.

Apropos of eggs.—Would any one think that empty eggs need the *Lancet* commission, and that even experienced eyes may be deceived? Yet more than one connoisseur in eggs has boasted of specimens in which there was not one particle of egg-shell, and which had only been hatched in the prolific brain of the forger. There are few objects more difficult to forge than an empty egg-shell, and when the forgery comes to be submitted to men whose eyes are as well practised in eggs as those of a Bank of England clerk in bank-notes, it is really astonishing that the forgery should pass undetected.

There is no very great difficulty in imitating the exterior of an egg which is to lie undisturbed in the cabinet, defended from strange hands by its protecting glass; the difficulty lies in imitating the weight, thickness of shell, and other peculiarities.

No one would trouble himself to forge eggs unless they were of considerable value, and accordingly the specimens chosen for this purpose were the eggs of the great auk. This bird lays its eggs in almost inaccessible situations, and accordingly, although the bird is not scarce, its egg is very rare indeed, and

bears much the same value among eggs as the orange cowry among shells.

Some years ago a foreigner called upon one of the metropolitan egg fanciers and offered for sale one or two eggs of the great auk at a price very small for the object, but in other respects absurdly large. The intended purchaser was rather surprised at the low price asked, but after some deliberation agreed to pay it.

Fortunately, before the sum demanded was actually paid, a gentleman came in, and, after examining the eggs carefully, pronounced them nothing but impostures. And so they were. So cleverly had the forger managed matters, and so thoroughly had he carried out every detail, that he had even taken the precaution of lining the egg with the proper membrane, part of which was left, ragged and torn, at the orifice, through which the contents were supposed to have been removed; and had also imbued the egg with an exact imitation of a peculiar odour that exists in all the eggs of that class of birds.

This circumstance was narrated to me by a person who had seen one of the false eggs, and who said that he should probably have been deceived by it had not his attention been specially called to its falsity.

There seems to be a kind of representative system running through the whole of nature, each order being balanced, as it were, by a corresponding order in another class. For instance, it is evident that the felidæ of the class mammalia find their representatives in the hawks, the eagle appearing to be the type of the lion.

So the vulture appears to represent the hyæna, to which it bears a strange resemblance in its habits and general aspect. Its food is almost invariably carrion, which it seems to prefer if putrid, and its demeanour is precisely such as would seem suitable to such food.

Look at a vulture, and you will see the type on which the Eastern nations formed their ghoules—those dreadful, semi-human monsters who lived in the tombs and devoured dead bodies, which they dug up with their nails. What reader of the “Arabian Nights” can look at a vulture, with its cruel eye, its crooked beak, and its grovelling, crouching attitude, without recalling to his mind the sensations that he felt when reading of the unfortunate husband who looked over a wall and found his wife in company with a ghoul—a female one, as the French version expressly informs us—and then proceeds to explain that “ghoules (I wonder who invented that sepulchral word) commonly inhabit ruinous buildings, whence they issue suddenly and surprise passengers, whom they kill and devour. If they fail to meet with travellers they go by night into burying-places to dig up dead bodies, and feed upon them.” I read these glorious adventures in three dear little volumes when at a very tender age, knowing nothing of jins and wuzeers, but placing my faith in genies and viziers. I should have liked to have had one of the former as my devoted slave whenever I rubbed a ring, and to have been one of the latter.

And in one of these little volumes there was a dreadful frontispiece illustrating the natural history of the ghoul. An unsuspecting traveller is walking in a cemetery at dusk; there are cypress trees in the distance, but these cypress trees the traveller will never reach, for a horrid black hand is protruded from a cleft in the earth, and has seized by the ankle the doomed victim, who looks over his shoulder with an agonised countenance at the fearful thing that holds him. Did I ever walk in the dusk after seeing that picture without keeping clear of every hole in the ground? Certainly not. Once, I know, when walking under the guardianship of a nurserymaid, I got one foot into a hole left by a horse's hoof in marshy ground, and being persuaded that the ghoul

had me at last, never attempted to move, but screamed for help. The nurserymaid, who extricated me, explained that it was only a mud-hole; but I knew better, and related the history of the ghoules with great effect. She was of opinion that it was cowardly to be frightened, but I put it to her whether *she* would not have been frightened if a ghoul had caught *her* by the ankle, which I firmly believed was the constant and universal mode adopted by those creatures for the apprehension of human beings.

How strangely a thought or an object brings back forgotten things to memory! I was not six years old at that time, and yet the remembrance of that ghoul-picture recalls to my mind every minute circumstance connected with that morning's walk. I can see now as plainly as if on the spot, the old, gray, ivy-covered wall dotted with tiny pink flowers on the left, the half-rotten palings on the right, with wasps biting out the decayed wood and flying away with it, the large chestnut tree in front, and the river in the distance. All these are before my eyes, even to the rough, stony gravel, and a battered halfpenny, which I picked up immediately after my rescue from the ghoul, and which I was told I might keep, but which, not being easy in conscience about it, I gave to a beggar.

Reverting to the description of the ghoul. Would it not serve almost as well for that of a hyæna or a vulture—the former of which creatures actually does disinter dead bodies when it fails in procuring food in any other way? So the representative system has even been carried further than animal life, and that unscientific men should have done so is rather a singular and suggestive fact.

It certainly seems to have its representation in man, whose countenance is capable of resembling many animals, as is well known to physiognomists and especially to caricaturists. We speak quite familiarly of the eagle countenance, of the lion as-

pect, and so on. This has been so well worked out by Webber, that I present at length his admirable portrait of the "vulture-man."

"The artist . . . has found that he can follow the antitype up from the animal to its type in man and trace it in him with assurance, through certain absolute features of physical resemblance.

"Thus, in the vaulted nose he sees the eagle, but soon discovers that all birds or men with vaulted beaks are not eagles; that some are silly parrots, and others filthy carrion-loving vultures! That one short step between the sublime and the ridiculous is illustrated to him here, in the ease with which a facial line peculiar to the greatest of men may be confounded with that belonging to the meanest.

"The parrot-man is often mistaken for the eagle-man; but the artist observes that, in the face of the driveller, the line of the nose vaults abruptly like the beak of the parrot, while the mouth and chin retreat feebly beneath the nut-cracking hook, giving all the appearance of strength in the face to the upper mandible, as if it were intended for the fool to hang himself up to roost by, after the manner of the bird.

"The vault of the eagle's beak, on the contrary, is very gradual, while the lower mandible, which expresses will and energy, is extended out nearer to a line with the top of the head. Close beneath this line, and to the base of the nostrils, the eyes are placed, giving at once an expression of fierce alertness, very different from those of the parrot, which are set near the middle of the head.

"Tracing this facial line down from the conqueror through all the grades of men, he finds it everywhere associated with aspiration and daring temper—with the impulse of the hero, if not with heroic deeds. Though the headstrong fool, with his parrot-bill, approaches this line closely on one side, and the vulture-beaked Jew, hungering for offal, on the other,

yet the careful artist is not imposed on thereby. He sees that in the pawnbroker and the old-clothes man, the line is that of a *vulture*—depressed near the ‘downward eye,’ and vaulting nearer the end, which lingers prolonged into a hungry curve, that seems formed to tear a way into the vitals.

“How loathsome the vulture-man as the artist sees him!—with his wrinkled, scaly, scavenger look; true to the antitype in base, brow, and beak, cunning eye, and even to the thin and recurved bristles on the back of the skinny neck and head.”

From the nature of the putrid flesh on which the vulture feeds, it contracts a detestable stench, so that again the comparison holds good, for both vulture and vulture-man are in bad odour. And the vulture is so well aware of this property, that it makes its own loathsomeness a mode of defence. If it is seized or insulted it instantly disgorges the putrid food over the aggressor, who is seldom proof against such an assault. Perhaps I should rather say that the action is instinctive, for the bird could hardly consider its own proper food as loathsome. A similar faculty is observed in many animals, such as the skunk, the teledu, and bombardier beetle.

I have heard of a little boy, metaphysically inclined, who was heard to observe—I believe immediately in reference to black-dose and unripe gooseberries—“I wonder why everything nasty is good for me, and everything nice is unwholesome.” Applied to the vulture, the first portion of this sentiment is true enough, for the vulture is very nasty, and very good for the people among whom it lives.

Fortunately, the people among whom vultures—that is, winged vultures—are found, are not inhabitants of the British Isles. For no bird will live where it cannot find food, and there are too many sausage-makers in England to give the vulture a chance of a livelihood. But in other countries, especially those of a hot climate, vultures are most

useful scavengers, as they speedily discover and devour any offal or dead animal that lies on the ground, and which would otherwise putrefy at leisure, and taint the atmosphere with deadly poison. It was only a few weeks ago that I met a crowd surrounding a man who was being carried to a hospital, to all appearance dead. He was a workman who was employed in opening a drain, and who dropped down as if he had been shot, on breathing the pestilential air that issued from it. So the service rendered by the vultures and their allies the hyænas may be estimated. And each seems to have its appointed task. The vulture tears off the flesh, leaving nothing but the skeleton, and that the hyæna eats. Therefore, the vulture is protected, and heavy penalties are inflicted on the man who kills one of the feathered scavengers.

It seems singular that the feathers of these birds should not be matted together with the odious substances that are constantly coming in contact with the plumage. But it must be remembered that the head and neck are without feathers, a peculiarity which gives to the bird much of its unpleasant aspect, and the feathers of the body and wings are so formed that when the bird shakes its plumage by means of its subcutaneous muscles, all extraneous substances fall off, much in the same way that water runs off a duck's back.

For many years a discussion has been raging among the scientific world about the vulture, and its power of discerning objects of prey at an incredible distance. One party—of which Waterton is the representative—assert that the sense of smell causes the bird to perceive the presence of food; while another party—represented by Audubon—contend that the vulture is directed by the sense of sight.

This has always been to me a question of very great interest, and I take the present opportunity of treating the subject carefully.

As this is a question of the senses, we must first look to the organs in which these senses reside. On dissection of the nostril and eye of the vulture, each organ is found to be developed perfectly, but with no apparently greater perfection than in other birds. Professor Owen, than whom is no higher authority in the world, dissected with care the olfactory system in the common turkey buzzard (*Cathartes aura*), a species of vulture found in most parts of the New World, comparing it with the corresponding organ in other birds of the same size, such as the turkey and the goose. I refrain from giving his account, although it is interesting, because it is necessarily so filled with technical terms, that those who understand them are sufficiently acquainted with the subject, and those who do not would gain no information from a collection of unintelligible words.

However, the result of the investigation was, that the sense of smell, or, at all events, the organ of smell, is well developed, but nothing more. And, curiously enough, the olfactory nerve is nearly twice as large in the goose as in the vulture, being required to spread over the wide bill.

As to the organs of scent in birds, they are not more worthy of notice than those of most animals, but when we come to examine the organs of sight the case is far different.

The sight of birds is singularly perfect, and possesses either a telescopic or microscopic power as required. The eyes of most, if not all, animals are endowed with this property to a certain extent, but not to so great an extent as the birds. The eye of man, for example, can distinguish a tree or any other large object, at a distance of several miles, or can read the smallest type. But there is always a sensible effort in changing the form of the eye, and a perceptible interval between the moment when the telescopic power is used, and that when its microscopic power is brought into operation.

But in birds, the change is almost instantaneous, as indeed is required from their habits. If the eye could not instantly adapt itself to the occasion, a bird might dash itself to pieces against an obstacle which would not come within the telescopic focus of the eye, or, on the contrary, might retain its magnifying power so as to render distant prey or a distant enemy invisible. The change is probably quite involuntary, and appears to be caused by a nervous action in the delicate structure of the eye and its surrounding parts.

The anatomical peculiarity of structure by which this end is attained, is well seen in the eye of the owl. It is rather difficult to explain the formation without the assistance of diagrams, but as the form of the present work will not permit them they must be omitted. When we wish to distinguish clearly a very minute object, we do so by bringing the eye as close to it as possible, contracting the brows, and forcing the eye more forward. By so doing, we bring the eye-ball into a more spherical shape, and so increase its magnifying powers.

But the eye of the owl, together with that of most birds, is surrounded by a circle of thin bony plates, which slightly overlap each other, and which can be drawn over each other by muscular power. When the owl wishes to see an object at a distance, the muscles are relaxed, the parts of the bony case are left comparatively at liberty, and the eye-ball expands by its own elasticity; the cornea becomes flattened, and the telescopic power is obtained.

Suppose that an owl is flitting about a farmyard, and looking only for its prey. Its eyes are then telescopic. Presently a mouse pops its head from its hole, sees nothing, hears nothing, for the plumage of the owl is so soft that it makes no sound in passing through the air, and finally emerges entirely. Down drops the owl upon the doomed mouse, and as it does so, the bony plates of the eye are drawn nearer

to each other, the eye-ball is pressed into a more spherical shape, and as the bird nears its victim, the microscopic power predominates over the telescopic. The same structure may be seen in the eyes of some of the fossil reptiles.

When more delicate adjustment is required, there is another mode of attaining the object. Within the eye, behind the lens, and attached to the optic nerve, just where it expands into the retina, is a small structure, called by anatomists the pecten, or comb, because it bears some slight resemblance to a comb in appearance. This consists of a membrane, appearing externally to be composed of the same substance as the inner coat of the eye, but in reality formed of a series of arteries and veins, that are easily filled with blood, and as easily emptied.

Now, as this curious organ is placed *behind* the lens, and *in* the transparent watery fluid that fills the eye, its object becomes tolerably evident. When it is acted upon by means of light or other modes of excitement, it becomes distended with blood, and, consequently, enlarged in size. But the fluid is not compressible, and as this pecten expands within it, the fluid is forced to push the lens forward, and, probably, the entire shape of the eye is slightly altered.

The rapidity with which the necessary alteration is made must be very great, and in some small birds almost instantaneous. The eye must necessarily distinguish very small objects at the extremity of the bill, or the bird would be unable to distinguish and to seize the minute insect which constitutes much of the food.

The distance, then, from the eye to the point of the beak, will be the length of the microscopic focus. Now, if we take the long-tailed titmouse for an example, the distance from the eye to the extremity of the beak is only four-tenths of an inch, and, conse-

quently, that will be the length of the bird's microscopic focus. But the average length of the human microscopic focus is five inches, and, consequently, the magnifying power of the bird will be nearly two thousand times as great as that of man. So that a bluebottle-fly will seem nearly as large as a sparrow in the eye of the bird, and butterflies' eggs as large as marbles. And yet the little creature can see a promising hunting-ground at a distance, direct its flight towards it, and immediately begin pecking away at the branches. The kestrel, too, balances itself in the air at a great height, and searches the fields that lie beneath with its telescopes of eyes. But when an unfortunate field-mouse ventures out of its hole, down comes the kestrel, its eye never losing its prey, even though the visual focus be changed from many hundred yards to a single inch. And the entire change is made in the single moment that is employed in the stoop.

Then, again, the pupil of a bird's eye appears to be singularly sensitive, and is constantly dilating and contracting, even when the light is quite uniform, or, at all events, does not act on the human eye. This is especially evident in such birds as the parrot, whose eyes have a very distinct pupil.

There is another portion of the eye of a bird that is well worth notice. This is the nictitating membrane, or third eyelid, as it is often called. Birds have two eyelids like those of man, but they generally close more by the elevation of the lower lid than by the depression of the upper. But in addition to these two lids, there is a third, very delicate and thin in its structure, and very elastic.

This membrane is moved by means of some muscles placed behind the eye, by which it is drawn at will over the cornea; the membrane itself is hidden in the inner corner of the eye, and when the muscles are relaxed, returns to its place by its own elasticity. This membrane may be seen to great advantage in

an owl when viewed by daylight. The nictitating membrane is in constant motion, being ever and anon rapidly drawn over the eye, as the owl sits blinking in the unwelcome glare.

The object of this membrane is apparently two-fold : first, to clear the surface of the eye from dust or any foreign substance that might irritate it ; and secondly, to guard the optic nerve against injury from too brilliant a light.

So much for the two senses. Now, against the olfactory theory it is urged that when an animal is killed, vultures are seen approaching on all sides, even *against* the wind, and therefore cannot be directed by the sense of smell ; while those on the opposite question say that as vultures surround a house in which a corpse is lying, they *must* be directed by the sense of smell.

To settle this question an experiment was performed, well known to all the scientific world, the result of which was that both parties were only fixed firmer in their belief.

The experiment was briefly this. A deer hide was stuffed with straw, and laid in the open air. A number of vultures assembled as usual round the carcass, and commenced operations in their accustomed manner, by tearing open the abdomen of the animal. Apparently deceived, they continued pulling out the straw for some time, and then flew away in disappointment.

From this experiment it was inferred that the vultures were entirely guided by sight, and that their sense of smell was not even acute enough to teach them that they were imposed upon. But so very elastic are facts, and so easily accommodated, that the opposite party drew a directly contrary inference from the very same facts. Their opinion was that the scent of the vultures was so delicate and perfect that it enabled the birds to perceive the emanations arising from the hide and the portions of animal substance necessarily

adhering to the interior; that the vultures, on tearing open the skin, found nothing except straw, but being led on by their exquisite sense of smell, persisted in pulling away the straw in hopes of attaining the animal substance which they smelt, and only went away when, after much labour, they did not discover sufficient food to reward their endeavours.

So much for argument based on facts; and it would not be unadvisable if people would bear this anecdote in mind when discussing other and higher matters.

For myself, I cannot see that either party have proved their point, or even given tolerably satisfactory proofs. Some people, to get over the difficulty, say that the vultures discover their prey by the simultaneous use of both senses, but this appears to be rather an Alexandrian mode of untying the Gordian knot.

In my opinion, the arguments brought by both parties *against* the theory of their adversaries are good and tenable, but not those which are advanced in favour of their own. The Nose party completely destroys the Eye theory, itself being equally vanquished by its visual opponent. Both seem to me to be wrong, because they only look at the question with the eye of materialists, referring to the outward senses that which I conceive to be no question of senses at all, but one entirely to be referred to that wonderful property called Instinct. All the dissection in the world would fail to settle the question; no microscope could penetrate the material nerve and tell the influence that animated it. But, put optic and olfactory nerves out of the question, refer the matter to instinct, and the difficulty seems at an end.

Nor are there wanting instances as collateral proofs. It is well known that animals, such as cats and dogs, have found their way back to their

accustomed homes after having been removed under circumstances that utterly preclude the possibility of a reference to any known sense. They have been carried away shut up in baskets, placed inside a coach, and even taken across the sea. Yet, after some time has elapsed, these very animals have been found in their old haunts, emaciated with hunger and exhausted with fatigue, having been led back to their homes by some strange influence which we cannot comprehend.

And, it must be remembered, that in these cases there is far less necessity for the exertion of such an instinct than in the case of the vulture and its food. The one is merely a question of comfort, the other of life and death. The dog or the cat could have lived in its new quarters, but the vulture without food must die. And this is an argument that carries weight, because, in nature, necessity is always considered, and, contrary to the proverb, has its laws.

However, a question it must necessarily rest, for vultures cannot speak, and unless we can find a second Indur to be transformed into a vulture, there is little probability that the point will be clearly ascertained. There is one comfortable fact in the position that I have laid down. If the senses are appealed to for proofs there are innumerable weak points; but let the stand be made on instinct, and the position is unassailable. As a companion instance, let me mention the well-known fact, that sharks seem to be instinctively conscious of a coming prey, and will for days follow a ship where lies one in mortal sickness. No one will say that the shark smells or sees the sick man, and it appears to me a precisely analogous case with the prey-detecting power of the vultures. But he who dissects nerves in order to find the instinctive power that animates them, may as well cut open the bellows to find the wind.

It is not at all necessary that the flesh round which

vultures congregate should be in the least putrid for them to discover it; for when animals are killed and left alone, the vultures will frequently assemble and strip the entire skeleton clean before any taint is perceptible to the most sensitive human nostril.

Vultures are possessed of a most extended power of digestion and singular capacity of stomach. If they are not disturbed in their meal they will continue to eat until they are hardly able to move, and their sluggish wings can scarcely bear them to the bough of a tree, on which they rest until their preposterous meal has gone through the process of digestion. In this state of repletion the crop is so distended with food that it forms a considerable projection under the throat, and the bird is positively intoxicated with food. Those who have any desire to catch the vultures, contrive, if possible, to surprise them in this state of torpidity, and, if they can come upon the birds unexpectedly, find them an easy prey.

But it is necessary to be at once rapid and cautious in the undertaking, for the vulture can suddenly eject its dinner, and, being thus lightened, escape by flight. And, as this same dinner is not composed of the most agreeable substances, or flavoured with the sweetest essences, it behoves the captor to beware for his own sake.

Yet, although to us this excessive gluttony is disgusting enough, there is an obvious object in it, and it is not at all unlikely that we may be quite as disgusting to the vulture as the vulture to us. Otherwise, what a very unpleasant life a vulture must lead, if its own food, its own habits, and its own scent, were as repulsive to itself as to other creatures.

There seem, however, to be many human creatures who can sympathise with the vulture, and it is curious how the extreme of civilisation appears to return in a circle to its commencement. The vulture eats and prefers putrid meat. Consequently, it is looked upon as an obscene and foul bird. A

Bosjesman will lie down by a slaughtered animal, and not remove from its vicinity until the whole of the meat has disappeared, partly by his own devouring energies, and partly by the rapidity of putrefaction in that burning land. An unsophisticated Englishman looks with almost equal disgust on vulture and Bosjesman, and would recoil from meat that was in the least tainted. But now appears upon the scene another Englishman, a gourmand, civilised to the last degree, and looking with contempt on the plebeian individual whose gastronomical ideas mount to no higher eminence than chops, or roast, or boiled. He goes home to his dinner, and luxuriates upon venison, pheasant, or partridge, perfuming the room with a horrible scent, which I should call putrefaction, but which he terms a "game flavour."

So I suppose that the vulture would also call it a "game flavour," and if it prefers its food rather further "gone" than the human gourmand, the predilection must be set down to civilisation, as it necessarily follows that the more "game" the flavour, the more civilised is the person who eats it. Perhaps I was wrong in saying that the vulture preferred its food in a further "gone" state than its human imitator, for I have known one case, at least, where such a thing would be almost impossible. There was a certain gentleman who was very nice and discriminating in his diet, but especially so in the article of game, which could never be too high to please him. On one occasion, some game—partridges, I believe—had been forwarded to him, but they were in such an advanced state of decomposition, that they were pronounced utterly unfit for consumption. However, the ladies of the family determined—as ladies will do—to try a wicked experiment, and to have the obnoxious birds cooked, in order to see if *they* were not too much for the victim. Accordingly, the birds were cooked, served, and eaten. The authoresses of the joke then asked how the birds were liked,

and received the unexpected answer that they were excellent, but that there was rather too much *rice*. What the "rice" was, I leave to the imagination.

There is said to be an infallible rule by which to discover how long a pheasant is to be kept before it is cooked. Two birds are to be procured, both of which were shot in the same day, and, if possible, in the same hour. They are then to be suspended by their tails, and when one bird drops down, the other is ready for the spit. It is true that one bird is thus sacrificed, but that is of no consideration to thorough-paced epicures—those wonderful beings who buy green peas at a guinea per quart, and give unheard-of sums for unseasonable dainties.

Allow me to observe here that if game has been suffered to hang too long, the offensive odour can be removed by the use of pure charcoal. If powdered, sewn in muslin bags, and then placed in the animal's interior, the evil odour vanishes as if by magic, and no harm will be done if powdered charcoal is also scattered among the feathers. The reason for this fact is, that the offensive scent of decomposing animal matter is caused by sulphuretted hydrogen gas, which is absorbed by charcoal in almost incredible quantities. For this reason, it is very useful if placed in sick rooms, where it has a marvellous effect in purifying the air. It should be powdered, placed in shallow saucers, which can be moved wherever their presence is required, and always kept dry.

Unpleasant as the vultures are to the eye and the nostril when seen closely, yet they are not totally destitute of beauty, apparent even to the casual observer; for their flight is singularly graceful and easy, in consequence of their magnificent spread of wing. It is really something extraordinary to see a vulture, especially one of the larger species, rise and deliberately stretch out its wings to their utmost limit, and it is a subject of regret that the bird will never keep them in that position sufficiently long for

a sketch to be made. It is not very easy to see the bird perform this act, but there was a person—and may be still—who, by uttering a peculiar cry, could always force the vultures to open their wings. To watch the young of a lion or tiger is almost the only mode of appreciating the extent of jaw and teeth belonging to the quadruped, and, in the same way, the stretching of the vulture's wing, which is an analogous action to yawning, affords the only means of seeing the vast surface which that wing covers. The range of quills is really magnificent; each stands in its place like a soldier in a regiment, supporting and being itself supported by the general mass. Aided by these enormous wings, the bird floats in the air almost without effort, and, apparently, altering its course by simple volition. Darwin's account of the flight of this bird is exceedingly graphic. He is speaking of the condor:—

“Except when rising from the ground, I do not recollect ever having seen one of these birds flap its wings. Near Lima I watched several for nearly half an hour without once taking off my eyes. They moved in large curves, sweeping in circles, descending and ascending without once flapping. As they glided close over my head, I intently watched from an oblique position the outlines of the separate and terminal feathers of the wing; if there had been the least vibratory movement, these would have blended together; but they were seen distinct against the blue sky.

“The head and neck were moved frequently, and apparently with force; and it appeared as if the extended wings formed the fulcrum on which the movements of the neck, body, and tail acted.”

“If the bird wished to descend, the wings were for a moment collapsed; and then, when again expanded with an altered inclination, the momentum gained by the rapid descent seemed to urge the bird upwards with the even and steady movement of a

paper kite. In case of any bird soaring, its motion must be sufficiently rapid, so that the action of the inclined surface of its body on the atmosphere may counterbalance its gravity. The force necessary to keep up the momentum of a body moving in a horizontal plane in that fluid in which there is so little friction, cannot be great, and this force is all that is wanted. The movement of the neck and body of the condor we must suppose sufficient for this. However this may be, it is truly wonderful to see so great a bird hour after hour, without any apparent exertion, wheeling and gliding over mountain and river."

The condor, of which Darwin here speaks, is the bird that has given rise to the fabled Roc of the "Arabian Nights." It is a bird of very great size, the expanded wings measuring rather more than nine feet, but this measurement sinks into insignificance before the descriptions of enthusiastic but inaccurate admirers, who gave some ten or twelve feet as the length of the quill-feathers alone, so that the expanse of wing would have been twenty-four feet, at the lowest computation. The eye is easily deceived, and the feathers of this bird, as well as of other vultures, sweep in such a magnificent curve, that the eye is quite deceived in their real length, and attributes to each quill-feather the measurement of the entire wing.

CHAPTER V.

HAWKS.

Subjugating Power of Man.—Falcon training among the Arabs.—Spirited Description of a Hawking Day by Gerard.—Falconry in Persia.—Falconry in England.—Rank of Hawks.—Technical Terms in Falconry. Battle between Peregrine Falcon and Heron.—Shortening Arms.—The Horse a Boxer.—The Mantis a Swordsman.—The Chætodon a Rifleman.—The Ant a Wrestler.—Lobsters and Knights.—Electricity.—Recent Discoveries.—Rapidity of Falcon's Flight.—Peregrine Falcon captured on board Ship.

THE analogy between the predaceous quadrupeds and birds has already been noticed, and this analogy even extends to the use made of them by mankind. There are many animals that seem to be formed for the express purpose of serving man, such as the horse or the ox, and some that appear to attach themselves to him voluntarily, as the dog. But there are other animals whose nature is directly opposed to man, and who will either avoid him as long as flight is possible, and when escape is impracticable, will attack him in their turn, and use with deadly effect the weapons with which nature has provided them. Yet even these creatures are converted to his use, and the terrible arms that have once been used against him, are now made to work for him. Chief among such quadrupeds is the chetah, a hunting leopard, and chief among such birds are the hawks, which hold much the same place among birds as the leopards among quadrupeds.

How such singular power exists in man, or

rather how the impression of the human power is conveyed to the animals, it is impossible to tell. Still such is the case, and it is very interesting to trace the mode by which the man asserts his dominion over the brute ; and I shall, therefore, give a short description of the mode by which so fierce a bird as a falcon is trained to turn its savage instincts to the service of its master.

In Europe, the falcons are generally taken from the nest when they are very young, and so trained through their extreme youth, until they must regard the falconer more as a parent than as a captor. But among the Arabs, where the science of falconry is in great renown, birds taken at too early an age are despised as being prone to weakness or disease. These dusky sportsmen prefer to leave the bird to the care of its own parents, and do not trouble themselves about it until it is old and strong enough to catch prey for itself. The whole mode of proceeding is very curious.

When some good falcons have been seen, the Arab notes their resting-place, which is generally some rock or ruin. He then provides himself with some bird, such as a pigeon or a partridge, on which the falcons are in the habit of feeding. Round the body of this decoy bird he fastens a fine net, and having thus prepared his bait, he sets off early in the morning for the falcon's resting-place. When there, he turns loose his pigeon, on which the falcon immediately pounces, and gets its claws so entangled in the meshes of the net, that the Arab has generally time to run up and secure it before it can extricate itself.

Having made sure of the bird, his first business is to put a hood over his head in order to debar him from sight, and to fasten jesses to the legs, by which it is restrained from flight. To the jesses is usually attached a string about four or five feet in length. It is a curious fact, that the bird dares not even attempt

to fly as long as the dark hood covers its eyes, and so its captor sets it on his shoulder or his head, and goes home with it.

Now commences its education. A perch is provided for the bird, and, lest the sharpness of its claws should be dulled, the wooden bar is wrapped round with cloth. The perch is a low one, only a foot or so from the ground. The first care of the falconer is now to accustom his bird to bear the sight of men, dogs, and horses, to allow the hood and jesses to be taken off or replaced at the owner's pleasure, and to take its food from the hand. The time that is occupied in this part of the education varies considerably. All falcons seem to offer a sharp resistance at first, and for some days refuse all kinds of nourishment. Some are positively ferocious, and if they are touched, attack the obnoxious hand with the full force of beak and talon. Now and then, it occurs that a bird is so incorrigibly ferocious that all attempts at training it are given up, and it is permitted to return to its original wild state. But if a falcon only can be brought under control, it generally turns out a more valuable bird in proportion to the resistance which it has made.

The falconers have two powerful auxiliaries to assist them in their task, and by means of employing darkness and hunger judiciously, they can subdue almost any bird. When the falcon at last condescends to eat, the food is placed on the ground, so that the bird is forced to leave its perch in order to satisfy its hunger, and, after a while, the hand is so placed at feeding time that the falcon can only obtain its food by perching upon its master's wrist.

The chief difficulty is now over, and the next step is to teach the bird what description of game it is intended to pursue. This is done by substituting a living bird for the meat with which it has formerly been fed. The falcon pounces on the bird and kills it, when some of the still warm flesh is cut off by

the trainer and given to his falcon. This is called the "*curée chaude*," and is thought by the Arabs to be the very best mode of training the birds in their final lessons. Indeed, it often happens that when falcons are so thoroughly savage that neither darkness nor hunger will tame them, the *curée chaude* works an instantaneous change in their dispositions, so that they suddenly become the friends of the man who brings them a living hare or partridge, and permits them to revel in its warm and bleeding flesh.

The next lesson is to teach the falcon to attack any particular bird or animal that its master points out. For this purpose the falconer sets off on horseback, taking with him a number of leverets or partridges, according as the falcon is to be trained to the chase of the one or the other. Laden with these creatures, he proceeds until he is fairly on the open plain, where is no refuge for the unhappy animals that are destined to be the falcon's prey. Lest the sight of men and horses should frighten the falcon, the first two or three lessons are given alone, and it is not until the bird has become tolerably trained that it can be loosed in the presence of company.

During the journey the falcon perches on its master's shoulder or head, but when an appropriate spot is reached, the bird is shifted to the left wrist, which is defended from its claws by a stout leather glove. The falconer now takes a partridge and clips one of its wings, or a hare and deprives it of one of its feet, humanity being quite out of the question, and sets it at liberty. He then slips the hood from the falcon's head, loosens the jesses by which it was held, and points out the flying prey.

This is the trying moment, as the entire future career of the hawk depends on the mode of action which it adopts. Some falcons will not pay the slightest attention to their intended prey, but the moment that they find themselves at liberty, spread their

wings and take to flight, uttering wild screams of joy. Thus the whole of the labour of training is lost in a minute. But true falconers do not trouble themselves about the loss of such birds, as they would never have been brought into a proper state of submission. In general though, the hunter instinct of the bird overpowers the sense of liberty. Its prey is before it, and every sense is wrapped up in the chase of the creature whose companions it has so often killed, and whose blood it has so often drunk. The moment that the hood is removed, its piercing eye marks out the quarry, and it swoops down upon it, where it remains until the owner comes up and replaces the hood and jesses.

There is yet one other lesson to be taught, perhaps more difficult than any of the others, and that is to induce the bird to leave its captured prey at the command of its master. How difficult a task this is may be imagined by any one who has endeavoured to take a mouse out of the jaws of a strange cat. The entire savage instinct seems to be concentrated on one object, and the animal forgets everything in that single absorbing idea. In order to attain this object the falconer provides himself with a "lure," consisting of a hare-skin stuffed with straw, and with which he has already made his bird familiar. When the falcon has secured its prey, the owner presents to the bird his lure, and utters a peculiar cry. At this sound the falcon looks round, sees the lure, and flies to its master, who replaces it on his wrist, and gives it a little of the raw flesh as a reward. At first it usually happens that the bird is deaf to the appeal, and the falconer is forced to approach his hawk on foot, and to place the lure before its eyes. When the falcon responds at once to its master's call, leaves the prey, and settles on his wrist, it is considered fit for flight, and not until then.

It is singular that the Arabs should give so much time to the training of their birds, as they are only

in use for a month or two, and are then suffered to go at liberty. They do not keep the birds through the entire year, but at the beginning of the moulting season let them loose, and replenish their perches with fresh birds in the ensuing season. Their education is generally completed about the beginning of December.

This account is taken from the work of Jules Gerard, whom I have already quoted. And his description of a hawking day is so spirited that I must be pardoned for extracting the passage in his own words.

After describing the assembly and the courteous ceremonies that accompany the arrival of the chief, he proceeds as follows. "As soon as a hare starts up, the man who first spies it gives the alarm, and the company spread themselves so as to form a circle. In the meantime the falcons are unhooded and the best-trained bird is loosed first.

"Directly it is free, the bird rises and flies over the circle formed by the horsemen, the falconer gallops in the direction of the hare, and calls his falcon according as he sees it stoop or hover. The falcon stoops upon a hare that runs, and hovers over one that squats.

"When the plains offer little shelter, the hares are usually so terrified at the sight of the falcon, that they squat on the ground on perceiving the bird. In either case the falcons are loosed in succession in order to assist the leading bird.

"It is a most attractive spectacle to see the falcons successively stooping upon the hare, and striking it with their claws without stopping, while the horsemen shake their mantles with exultation, and shout loud enough to frighten to death a braver animal than a hare.

"Whether the hare runs or squats, the falcon does not fasten upon it until the animal is so stunned with the blows which it has received that it gives no

signs of life. Then the head falconer issues his commands, the falcons are recovered, hooded, and a new chase commences.

“As falcons become sluggish if permitted to eat their fill, they are only allowed to gorge themselves on the last hare that they catch; but in the meantime they are rewarded for their work and incited to fresh exertions by small pieces of meat which the falconer takes care to bring with him.

“It sometimes happens that the hare, on perceiving the falcon, takes refuge under the belly of the horses, and is even there pursued by the falcon. The chase then becomes full of interest and noisier than ever.

“As the falcon cannot strike its prey except from above, the body of the horse forms an obstacle to its success, and the bird expresses its rage by piercing cries, at the same time dashing round or rising above the quadruped protector.

“It is no use for the horseman to urge his beast to the right, to the left, forward or backward, for the poor hare still remains under it, and cannot be got rid of.

“At last, when every one has sufficiently enjoyed the sight, a horseman dismounts, takes the hare up in his hands, and throws it into the midst of the circle, at the same time calling the attention of the falcons, who impatiently await this the last scene of the drama.

“Having assured himself that the birds are at hand hovering above his head, he holds up to them the hare in his arms, and casts it away with his full force. Hardly does it reach the ground, before one of the falcons is on it, and strikes it with his talons. The other birds immediately follow, and inflict the death-blow on the poor animal.

“The partridge is hunted by the Arabs in a similar manner, with the exception that, instead of forming in a circle, they gallop in a line, and follow the course of the falcon. The chase of this bird does

not present such attraction as that of the hare, and, therefore, it is but rarely practised.

“The chase that is of the greatest interest both to Arabs and Christians, and that which best exhibits the courage of the falcon, is that of the bustard. Only the southern tribes are privileged to hunt this bird, as it never comes into the colder regions of the high plains.

“Those native chiefs who possess a cast of hawks for the purpose of hunting the bustard, display in their chases an imposing array of men and horses, which adds to their interest. It is not at all uncommon to see at one meeting an assembly of from two to three hundred horsemen.

“The bustard may be met with on either side of the mountains which separate Tell from the desert, but generally without them. This bird is generally seen in flocks varying in number from ten to thirty. As it permits the horsemen to approach tolerably near, they spread themselves out so as to form a long line on the plain, preceded by the falconers, who walk in front at some distance from each other.

“If it happens that the bustards take to flight too soon, the spot where they settle is marked down, and the line advances until it comes upon a flock that have not left the ground, or that only rises at a short distance. In either case one or two of the best falcons are loosed. Some bustards permit themselves to be killed on the spot, but, as this mode of action offers no interest, the Arabs endeavour to prevent the bustards from awaiting the falcon.

“In the latter case, the selected bird at first dashes among the flock in order to be confounded with the other birds, but when it perceives itself to be closely pressed, it darts vertically upwards, so as to keep itself above its pursuer. At that point, the remaining falcons are loosed. The chase now acquires extraordinary interest, and the horsemen who had before

been scattered about the plain now rejoin their chief at full gallop.

“Generally, the battle is a long one, and the bustard cannot be dragged to the ground until the falcons have been able to rise above it, to bind it, and to break one of its wings, or peck out an eye. Then, in the midst of a circle formed by the horsemen, down fall bustard and falcons, and it not unfrequently happens that the latter are killed by the fall.

“Sometimes, instead of rising perpendicularly after being separated from the flock, the bustard darts off horizontally at full speed, followed by falcons, chief and horsemen. Generally, one of the falcons manages to bind the bustard, and by the same movement breaks one of its wings, and so brings it to the ground. But sometimes, after several hours of steeple-chasing, the chief falconer calls a retreat, and leaves to his underling the task of following the chase and recovering their birds.”

In this very spirited account I have not thought it necessary to translate, or rather to construe, every word of the original, but have omitted a few sentences here and there, which seemed to interfere with the course of the narrative, and to take up unnecessary room. The training of the falcons is, or rather was, managed in England in much the same way as that narrated by Gerard, with the exception that the heron takes the place of the bustard, and that the birds were kept from season to season.

In another part of the hawking world, I believe in Persia, the hawks are singularly fitted with stout leather breeches, and that for a curious reason. These hawks are intended to chase and to arrest animals very much larger than themselves, and that they manage by driving the talons of one foot into their prey, and with the other grasping at the reeds and bushes that cover the ground, so that the poor animal is brought up, to speak nautically, by a

living anchor. And the force with which it struggles to escape is so great, that unless the hawk were defended by the leather clothing above-mentioned, it would be torn asunder, and become a miniature spread eagle.

As to falconry in this country, it is just an impossibility, although there does still exist such an officer as the Hereditary Grand Falconer, and that such an officer should be chosen from the highest in the land, shows the great importance of the art in early times. Indeed, the description of falcon, or rather hawk, that a person of either sex was permitted to carry, was the indication of their rank. According to an ancient work on hawking, the following was the arrangement:—

- For the Emperor—the Eagle or Vulture.
- For the King—the Ger-Falcon.
- For the Prince—the Falcon gentle, or the Tercel gentle.
- For the Duke—the Rock Falcon.
- For the Earl—the Peregrine Falcon.
- For the Baron—the Bastard Falcon.
- For the Knight—the Sacre and the Sacret.
- For the Esquire—the Harrier and the Lanneret.
- For the Lady—the Merlin.
- For the Young Man—the Hobby.
- For the Yeoman—the Goshawk.
- For the Poor Man—the Tercel.
- For the Priest—the Sparrowhawk.
- For the Holy-water Clerk—the Musket.
- For the Knave (or Servant)—the Kestrel.

Even the noble science of Heraldry hardly abounds more in bewildering terms, than its sister science of Falconry. And as their names were in the habit of changing according to the chronology of the period, the list of technical terms is somewhat formidable, and I do not mean to perplex my readers with more than a few of the most prominent, which seem to have been retained through most of the venatical conturbations, as Sir P. Shafton would probably and

euphuistically, have termed the constant changes of hunting terms.

Thus then, just as the stag received different names according to its age and growth, so did the falcon assume various titles. For instance, taking the peregrine falcon as an example, a wild bird was termed a "haggard;" when young, it was named an "eyass" or "red falcon;" and when a full-grown male, it received the name of "tercel," or "tassel-gentle."

And as to hunting terms, to cut the talons was termed "coping" them; when the hawk fastened on the prey, she was said to "bind it;" to hunt quadrupeds, was to "fly at the fur;" while the chase of birds was called "flying at the plume." The decorated stick by which the falcons were enticed back to their master, received the name of "lure;" and the feathers and other articles that were fastened to it were comprehended under the term of "drawer." The straps that bound the feet of the hawk to the fowler's hand, were termed "jesses," and the string that permitted the bird to fly for a restricted distance, was called the "creance." And so on, *ad infinitum*.

The peregrine falcon seems to pursue the heron by a natural instinct, which is so strong as to overcome the most disadvantageous circumstances. An experiment of this kind was once tried. It was hardly fair, because the bird was entirely deprived of the power to follow her natural instinct of mounting above the prey, and sweeping down upon it from a great elevation. The experiment was as follows:—

There was a female peregrine falcon which had been taken from the nest, and brought up on ordinary hawk's food, and occasionally treated to a small bird. But she had never been permitted to fly after game, and her instinct had thus been in abeyance. The bird was kept for a day without food, and on the following day an old male heron was placed in the same room. In order to compensate in some degree for

the disadvantageous position of the falcon, the beak of the heron had been blunted, but otherwise it was a fair conflict.

The heron did not seem to care particularly for the falcon, but walked round the room, seeking an opportunity of escape, while the falcon, perched on a stool, kept watch. Presently, she made a dash at the heron's head, but, from the low elevation of the stool, missed her aim, and was struck by a blow from the heron's beak, which would probably have transfixed her, had it not been blunted. As it was, the falcon was for the time repulsed, but soon regained her station on the stool, and waited for a second opportunity. This was soon given, and the falcon made another attack with the same result.

She had now learned experience, and found a perch on a box that was rather higher than the stool, but still too low for her purpose. The heron still continued his rounds, searching on every side for some mode of escape, while the falcon noted every movement with a watchful eye. At last, she seemed to make up her mind, and, springing from her perch, succeeded in fastening her claws on the head and neck of the heron, who was at once brought to the ground.

The contest was now virtually ended, and the fate of the heron decided. In spite of his superior size and strength, he could by no exertion shake off the terrible claws that were clasped round his throat. He struck wildly with his wings as he flapped across the floor, and endeavoured to kick away his foe with his powerful feet. But all his efforts were vain, and in a very short time the heron lay dead on the ground.

The falcon was so rapid in its movements, that the heron had hardly lain prostrate, before his foe had nearly severed the head from his body. She then regaled herself on the head and neck of her vanquished enemy.

The mode of defence used by the heron when it

has free scope to fly in the open air, is a most dangerous one to the falcon. When the falcon has succeeded in rising above the heron, and is in the act of making its stoop, it suddenly draws back its head and neck among its feathers, and only presents the bill, which points upwards, and sometimes receives the falcon on the tip, which being exceedingly sharp, inflicts a mortal wound. Sometimes the falcon has been completely transfixed by this deadly weapon, and it is said that both falcon and heron have been instantaneously destroyed, the one by the heron's bill, and the other from the shock of the falcon's descent, by which the neck of the heron was dislocated.

It is curious to see how often Nature is unintentionally imitated. Those who are learned in the details of military exercises, are aware of a certain manœuvre in the bayonet exercise termed "shortening arms." This is an exact imitation of the movement made by the heron when attacked by the hawk. The person who shortens arms is supposed to be attacked by a swordsman, who succeeds in getting within the bayonet, and pushing it to one side, so as to lay open the holder. In that case, there is one mode of escape, viz. by throwing the musket backwards to the full stretch of the arms, in such a manner that the bayonet rests upon the shoulder, and presents its point to the adversary, just as he thinks that he has succeeded in passing it. I do not know whether the inventor of the bayonet exercise was a practical falconer; at all events he seems to have entered into the theory of the science.

It is worth some little trouble to see how things artificial are almost invariably borrowed in some way from things natural. Too much time and space would be consumed in showing the analogy between nature and art in all the instances, but as we have got upon the science of arms, let us see how the instructions of the maître d'armes may mostly be referred to the things that occur in untaught nature.

Take man's natural arms, his fists. When two ploughboys choose to quarrel and fight it out with "fistes," they generally rush at each other impetuously, and probably butt with their heads—like rams. Then, when they begin to use their arms, they whirl them about like the sails of a windmill, and deliver great, lumbering, round blows, which are effectual enough when they do strike, but can be guarded with the greatest ease. Now comes the man of "science," to use the elegant term in vogue; he takes one of these round-hitting youngsters in hand, and tells him to strike out straight from the shoulder.

That very lesson may be learned from the horse, who, when he fights, strikes out straight and sharp with his fore legs, and does immense mischief. The stag acts in much the same way.

Now, let our ploughboy take Her Majesty's shilling, be drafted into a cavalry regiment, and learn the use of the broadsword. He is instructed how to cut, to guard, and to parry, by a mode that has been in course of elimination for many years. But, if our swordsmen only knew that natural swordmanship was in full practice long before steel or even wooden swords were made, he might probably think a little less of his own accomplishments. Yes, many, many years before Tubal Cain worked in metals or forged a blade, the leaf insect, or mantis, was in full practice as a swordsman, and knew as well how to cut and guard as M. Angelo himself. Now-a-days, certain steel-sinewed men exhibit their strength by severing a sheep at a single blow. Yet, if two of those hard-hitting warriors were opposed to each other in deadly combat, I do not think that one of them could cut his adversary in two with a single stroke, and then eat the pieces afterwards. No, he must learn from the mantis how to do that.

The Minié rifle is now the talk of the day, and of all Miniés, the most terrible is that which discharges some twenty-five balls without the trouble of reload-

ing. But there were sharp-shooters in striped uniform, long before our own bottle-greens were born. Their family name is Chætodon, and they can shoot you as many flies as you will, their ammunition never failing, for it consists of drops of the water in which they swim.

Among other agreeable modes of destroying and vanquishing each other, human beings have invented certain objects termed, not perhaps elegantly, but at all events forcibly, "stink-pots." These are used for the purpose of dislodging an enemy who is proof against shot and cold steel, and perform their office by giving out such horrible fumes that life itself is endangered in their presence. It is an ingenious invention, but only a copy of the weapons of many animals, such as the skunk and the teledu among quadrupeds, and the bombadier beetle among insects.

If a visitor inspects a fortified town or even a well-managed fort, he sees sundry contrivances for catching the unwary foes in pitfalls, and then treating them to a volley of musket balls to prevent their escape. It may be that the same visitor may also have inspected, or at all events have read about, a certain insect called the ant lion, which digs pitfalls in a very ingenious manner, and having captured an unwary ant or other insect, prevents it from escape, by showering sand upon it. And to an ant, grains of sand are as big as paving-stones to us.

Do you wish to take a lesson in ordinary wrestling? If so, look at two hostile white ants. If you wish to wrestle after the Cornish mode, and squeeze the breath out of your antagonist's body, the bear is your teacher, or, if you prefer the Devonshire manner and would like to kick your opponent to rags, you may obtain very good instruction from the kangaroo. Then, to go back to the days of chivalry, and to mix with the knights of old and the barons bold, their tournaments were but amalgamations of the sword-fish and the lobster, the former furnishing the offen-

sive and the latter the defensive arms. I may not insert a drawing here, because I am told that it will make a difference of some shillings and sixpences (I forget how many) per sheet in the printing, and so I must ask the reader to make the sketch for himself. Let him draw the outline of a swordfish's-head and snout, cutting it off just before the eyes of the fish. Then let him draw immediately under it another sketch of a tilting lance, cutting it off at the place where the hand grasps it, and it will be seen that they are almost identical in shape. Then, as to the defensive armour, the resemblance between a lobster and a knight armed *cap-à-pie* is too close to be more than alluded to.

I might easily complete my volume by drawing analogies in this manner, and therefore I will only mention one more instance, hopping from 1190 to 1856, and passing from the downright blows of the Crusades to the far-slaying weapons of the present day. One of the most remarkable circumstances connected with the late war, was the mode in which peace-loving science was made to lend itself to the art of war. And among the various branches of science, electricity was pressed into the service, and gave its aid towards exploding mines at a great distance, and otherwise annoying the foe. And it is not at all impossible that the comparatively clumsy expedient of burying gunpowder in the path of an enemy and then exploding it at the right moment by electrical means, will be discarded, and that a mode will be discovered by which the entire destruction will be worked by electricity itself. Yet, even were this great advance in the warlike art to take place, we should only be on a level with a fish, which has been in the habit of destroying its enemies by electrical shocks, ages before amber was discovered to attract light substances when rubbed.

I have no doubt whatever, but that if science still proceeds with the rapid strides of the last few years,

we shall always find some natural object either on a level or in advance of us, and probably on account of properties to which we had long been familiar, but which we failed to comprehend. The loadstone was a toy for hundreds of years before it was used to guide vessels over the trackless ocean. The mere perfume of a flower, or the phosphoric light of certain marine creatures, may at some future time lead to unexpected results, just as the falling apple led to the law of gravitation, and the rainbow to the true theory of light. And when the discovery is made, we shall wonder why such a very simple fact was not discovered long ago, forgetting that when an egg is to be balanced, a Columbus is required to do it. Men advance to the very verge of a grand discovery, and there stop trembling on its very edge. The slightest impulse would carry them over, but that impulse is not given until the man comes whose daring mind overleaps the petty obstacle, and displays the vast fields to an astonished world. In other words, the discovery is not made, because the time has not come for it. See how such is the case with every great discovery.

And, apparently in order to show that this is the right view of the matter, and to prevent the discoverer from being too much puffed up with the idea of his own powers, the same identical discovery is either made simultaneously in another part of the world, and by a person with whom there has been no connection whatever; or it is found, after all, to be only a revival of the facts found out and noted by some one who lived long ago, and who died in obscurity. For, man is not a god, that he can claim to himself the glory of discovering a natural phenomenon. But the curious thing is, that men seem to take to themselves, or to give to other men the credit, not only of the discovery, but of the fact which they discover, and so they speak of the Newtonian laws of gravitation, or of galvanism, just as if Newton

made attraction, and Galvani that particular form of electricity called by his name. People talk of the right man in the right place, but I think that it is quite as important to have the right name in the right place.

To return to our falcons. The flight of these birds is exceedingly swift, and their power of endurance great. They have been known to fly nearly one hundred and fifty miles in an hour, nearly three times the rate of an express train, and instances are on record where they have been noted to fly upwards of five hundred miles without resting. In the year 1838, at a meeting of the Zoological Society of London, a specimen of the peregrine falcon was placed on the table, and the following letter read from Captain Robertson, the commander of the *Exmouth*, on board of which the hawk was taken :—

“ * * * * * The accompanying hawk was caught on board the *Exmouth*, on the 12th of February last, on her passage from Bengal to London, when in about latitude 12° north and longitude 88° 30' east, which placed the ship about three hundred miles from the Andaman Islands; and from observing the bird's tendency to fly away towards the east about the time of sunrise, for some days after it was caught, I am led to suppose that it must have been blown off, or followed its prey until out of sight of those islands. At the time it was taken it was on the maintopsail-yard, in the act of devouring the remains of a sea-bird, which it had previously been seen to pounce down upon and take up from the sea.

“ The injury to the leg was caused by a ring to which it was attached when first caught, and the struggles of the bird to get away; but I have great hopes that it will regain in some measure the use of it by proper care and attention, which I was unable to give it; and it is now much improved to what it was, the two parts being much more inclined to unite. I have fed it upon raw fresh meat, and young rats

occasionally; but it never looks at water. When approaching the coast of England, it was very remarkable that the bird again struggled to get away in the direction of the land, although we were so far off as not to see it from the ship. I am not aware that this hawk differs from the common species, but the circumstances attending it may be interesting to a naturalist; and if it should be thought worthy of being added to your collection, I shall feel amply repaid for the trouble I have taken to preserve it.

“This is the second instance of a hawk being taken by me out of sight of land; and on the former occasion, a sparrow took refuge in the cabin; we were at that time about eighty miles from Ceylon. From these circumstances, it is evident that hawks traverse great spaces of ocean, being able to feed on the wing.”

CHAPTER VI.

HAWKS—CONTINUED.

Chaucer among the Birds.—Scientific Nomenclature.—The Jer-Falcon.—Its Powers of Flight.—Goat caught by Falcons.—Russian Falcons.—Falconry in India.—Markwick a bad Shot.—Magpie Hawking.—The Goshawk.—Wood Life.—Bosjesman and Lion.—Bird of Yggdrasil.—The Shah and his Falcon.—The Kite.—Its Love for its Young.

THE hawk is too poetical a bird to be passed over in the literature of any country where it may reside. In our land the earlier poets teem with imagery derived from this bird. In grand old Chaucer, for example, we find many such passages. The following stanzas, taken from his "Assembly of Fowls," are so significant, and show so masterly a power of description, that I must extract the entire five stanzas, in which are described no less than thirty-four birds in a compass of thirty-five lines, the leading characteristic of each bird being given sharply and clearly.

"There might men the royall Egle find,
That with his sharpe looke perseth the sun,
And other Egles of a lower kind,
Of which that clerkes well devisen con.
There was the tyrant with his fethers don,
And grene, I mean the Goshawke, that doth pine
To birdes for his outrageous ravine ;

"The Gentle-Faucon, that with his fete destreineth
The king's hand ; the hardy Sperhauke eke
The quales foe ; the Merlion that peineth
Himself full oft the Larke for to seke ;
There was the Dove, with her eyen meke ;
The jelous Swan, ayenst his deth that singeth ;
The Oul eke, that of deth the bode bringeth ;

“The Crane, the geaunt, with his trompes sounē;
 The thief the Chough; and the chattering Pie;
 The scorning Jaye; the eles foe, the Heronne;
 The false Lapwing, full of trecherie;
 The Stare, that the counsaile can bewray;
 The tame Ruddocke; and the coward Kite;
 The Cocke, that horloge is of thorpes lite;

“The Sparowe, Venus’ son; and the Nightingale,
 That clepeth forth the fresh leaves new;
 The Swalowe, murderer of the bees smale,
 That maken house of floures fresh of hew;
 The wedded Turtle, with his herte true;
 The Pecoche, with his angel-feathers bright;
 The Fesaunt, scorner of the Cocke by night;

“The waken Gose; the Cuckowe ever unkind;
 The Poppingay, full of delicacy;
 The Drake, stroier of his owne kind;
 The Storke, wreker of adulterie;
 The hote Cormorant, full of glotony;
 The Ravin; and the Crowe, with her voice of care;
 The Throstell olde; and the frostie Feldefare.”

I do not in general admit poetry into my pages, but it would have been positively a crime against the reader to omit such a masterly passage as that which I have just quoted. Poets seem to be necessarily naturalists in the truest sense of the word. They may not possess brains stuffed with the cruel vocabularies of the museum and the cabinet, but their minds drink in the truths of living nature, weave them into form, and send them out to the world. In another part of the very same poem Chaucer displays equal knowledge of trees, mentioning and dismissing each, with an epithet that stamps its individuality to the ear, as plainly as its leaf would distinguish it to the eye.

I wonder why so many naturalists think that they are bound to write in a dry, sententious manner, and to fill their pages with words that seem to build themselves into a fence, through which we have no more power of reaching the subject than through a hedge of the prickly cactus, or the wait-a-bit thorn. Indeed, I never open a very scientific book without

appearing to see the long words forming themselves into *chevaux de frise*, and poking their sharp points in every direction out of the paper.

Surely science is not at war with mankind, that it needs to entrench itself in an inaccessible camp. Science ought to pour its light on the world, and not to shut itself up in a dark lantern, which either gives no light at all, or blinds one with a flash from its bull's-eye. But, at present, science encamps itself, and those who carry away its treasures and spread them before the world are forced to storm the camp in the face of the word-artillery, and to suffer greatly from words afterwards. The lieutenant-generals of science keep a very sharp watch over any one who enters their camp without their passwords, and *if* they catch him, treat him as a spy, and gibbet him in the sight of men on a word-gallows, with a verbal rope.

"Impostor," and "pretender" are the gibbet and rope destined for the unhappy man who dares to call an ass anything but "*Asinus vulgaris*." I might carry on this last image, but refrain in pity.

Now-a-days, too, Science is so very skilful in her military affairs, that she keeps a corps of sharpshooters, and no sooner does a would-be naturalist show his head in the distance, than he gets shot through the brain by a horrible Minié bullet of a word, that effectually slays the naturalist in him.

I should very much like to see an army take General Common Sense for its leader, and attack the scientific camp. But it would be a fearful struggle, for what chance would have

Mole	}	against	{	TALPA Europæa.
Horse				EQUUS Caballus.
Jackdaw				CORVUS Monedula.
Frog				RANA temporaria.
Viper				PELIAS Berus.
Anchovy				ENGRAULIS Encrasicolus.

I dread to think of it.

And these are all vertebrate animals, which, being comparatively large, do not require very long names. But it appears to be a scientific fact, that the diminutiveness of a creature's form is to be compensated by the dimensions of its name, just as a very little man always wears a tall hat and high-heeled boots. So, when we get among the insects, we are opposed by some horrible monsters called "*Rhino-cyllus Antiodontalgicus*," or "*Læmobothrion Tin-nunculi*." It is true that the former is only a very small beetle, and the latter an equally small parasite, but still their names are positively terrific. Fancy being warned against going into Epping Forest, for fear of meeting an *Antiodontalgicus*. I think that most people would as soon meet a lion—that is, if it were not called *Leo Africanus*—Gordon Cumming himself couldn't do it.

I do not object to technical terms in moderation, for to a certain degree they are useful and necessary, just as workmen in every art must have their own peculiar terms for their own peculiar tools. But at present there seems to be quite a mania for inventing hard names, which are crowded and heaped upon objects with reckless extravagance.

And if people would be content with giving one name to each creature, there would be some hope of learning them, however long they might be. But as almost every one who dives deeply into the subject sees that former names are not sufficiently expressive, he straightway affixes a new one of his own—now and then Latinizing his own cognomen, or getting a scientific friend to do it for him, he repaying the compliment in kind on the next occasion. Thus we are indulged with such titles as *Trilatitus Horsfieldii*, *Macroscelides Edwardsii*, *Andrena Collinsoniana*, &c., so that we may soon expect *Canis Hubbardiensis*, or *Asinus Lillywhite-samii*.

Again, I open at random a volume of the British

Museum Catalogue of British Birds, and find the common Kittiwake Gull on the page. Now would any one suppose that the poor harmless Kitty would have to groan under such a pressure of titles as these :

RISSA TRIDACTYLA. The Kittiwake Gull.

- Larus Rissia*, *Linn. S. N.* i. p. 224; *Leach, Syst. Cat. Mam. & B. B. M.* p. 40; *Flem. Brit. An.* p. 141.
Larus tridactylus, *Linn. S. N.* i. p. 224; *Temm. Man. d'Orn.* 1815, p. 502; *Jenyns, Man. B. Vert. An.* p. 274; *Keys & Bl. Wirbelth. Eur.* p. 95; *Naum. Vög. Deuts.* (1840), x. p. 322, t. 262; *Schleg. Rev. Crit. des Ois. d'Eur.* p. 126.
Larus gavia, *Pall. Zoogr.* ii. p. 329.
Larus canus, *Pall. Zoogr.* ii. p. 330.
Gavia tridactyla, *Boie, Isis* (1822), p. 563.
Rissa Brunnichii, *Leach, Steph. Gen. Zool.* xiii. p. 181, pl. 21.
Cheimonea tridactyla, *Kaup, Naturl. Syst.* p. 84.
Rissa cinerea, *Eyton, Cat. Brit. B.* p. 52.
Rissa tridactyla, *Macgill, Man. N. H. Ornith.* ii. p. 250; *G. R. Gray, Gen. of B.* iii. p. 655.
Laroides tridactylus, *Brehm. Vög. Deuts.* p. 754.
Laroides rissa, *Brehm. Vög. Deuts.* p. 755, t. 37, f. 3.
Laroides minor, *Brehm. Vög. Deuts.* p. 756.
Kittiwake, *Mont. Orn. Dict.; Bew. Brit. B.* (1804), ii. p. 229, fig. ; *Selby, Brit. Orn.* ii. p. 493.
Kittiwake Gull, *Penn. Brit. Zool.* (1812), ii. 186; *Yarr. Brit. B.* 2nd Edit. iii. p. 562, fig. .
Tarrock Gull, *Mont. Orn. Dict.; Bew. Brit. B.* (1804), ii. p. 231; *Penn, Brit. Zool.* (1812), ii. p. 187.

Here are no less than *fourteen* names given to one single bird, and that quite a common one. Surely the cause of science would not suffer if ten of these names had never been given at all.

Then, to turn to the insects. Suppose we take one of the very commonest and best-known insects, the "Red-hipped Humble Bee," it does seem rather singular that, when we look in the catalogue, the following complicated list is placed before us :—

BOMBUS LAPIDARIUS.

Ap. lapidaria, *Linn.* ii. 960; *Barb. G.* pl. 15, f. 3; *Don.* iii. 97, pl. 108, f. 1; *Id.* pl. 88, f. 2 β ; *Shaw, N. M.* pl. 454; *Kirby, M. A.* ii. 364; *Stew.* ii. 243; *Turt.* iii. 549; *Shaw, G. Z.* vi. 347; pl. 98, *fig. inf. dext.*; *Don.* xi. pl. 385, f. 1 σ .

The orange-tailed Bee, *Bingley*, iii. 290.

Ap. pratorum, *Christi. Hy.* 141, pl. 11, f. 5 β .

Ap. audens, *Harr. Ex.* 130, pl. xxxviii. f. 2.

Ap. opis, *Harr. Ex.* 137, pl. xl. f. 12.

Ap. pertristis, *Harr. Ex.* 137, pl. xl. f. 15.

σ *Ap. arbustorum*, *Fab. E. S.* ii. 347.

Ap. coronata, *Fourc.* ii. 449.

Ap. strenuus, *Harr. Ex.* 131, pl. xxxviii. f. 5?

Ap. hæmorrhoidalis, *Christi. Hy.* 132, pl. 9, f. 2.

β ? *Ap. flavicollis*, *Sowerb. B. M.* 1, pl. 19.

Bo. flavicollis (*Sam.* i. 6).

It requires a very strong-minded individual to attack such an array of language. And the singular thing is, that the public, as represented by the press, is never quite pleased with the view that one takes.

For example. In my "Illustrated Natural History," as the work was intended partly to act as a guide to the British Museum, I arranged it according to the catalogues of that institution, and therefore gave the chief scientific names of the creatures. And, although I carefully gave the meaning, derivation, and pronunciation of those names, I was termed a "pedant" for using them.

So, when my next book came out, I determined not to use scientific terms at all. And the consequence was, that the very identical journal that pronounced me a "pedant" because I inserted the scientific terms in the first work, positively denounced me as "no zoologist," because I omitted them from the second.

Not that I complain of those opinions, but it does show how difficult it is to steer a middle course. There is a proverb, "In medio tutissimus ibis," but I do not believe it. For the individual in the middle is apt to receive the fire of both parties, because he

belongs to neither. To please people, there is nothing like going to one extreme or the other, for then one party upholds and the other respects. But woe to him who repudiates party, and flatters himself that he shall be "*medio tutissimus*." Bulwer very justly remarks, that "No one fares so ill in a crowd as the man who is wedged in the middle." Now I have relieved my mind a little, and we will return to our hawks.

According to Mudie, the jer-falcon takes the lead of the falcon family, just as the falcons take the lead of the feathered tribes. The flight of this noble bird is perfectly wonderful; and as it ascends in order to gain a point of vantage above its intended prey, each stroke of the wings seems to make it leap into the air. And when it has succeeded in getting fairly above its prey, its swoop is so sudden and rapid, that it has been happily termed "a torrent of falcon rushing for fathoms through the air."

But it is not very easy to see the bird, as it is but very rarely found in the British Isles, preferring to make its home in Iceland or Norway. Yet its power of wing is so great, that it is quite capable of leaving Iceland in the morning, breakfasting or dining in Scotland, and getting back to Iceland in plenty of time for supper, if it should still be hungry. The distance is quite trifling to a jer-falcon, being only five hundred miles or so.

The jer-falcon is a terrible bird in fight as well as in chase, and can even vanquish the raven himself, in spite of his pickaxe of a beak and his exceeding craftiness. Sometimes, though, the jer-falcon is defeated in the chase, and that by one of the most helpless of birds—the ptarmigan. The falcon as well as the ptarmigan is light coloured in plumage, and chases the latter bird over the snow-covered wastes. But, when the falcon pounces on a flock of ptarmigans, the intended victims elude their pursuer, by boldly plunging into the deep snow, and tunnelling

a way for themselves beneath its shelter, where they wait until their enemy has left the spot.

The various falcons are used for the chase of both quadrupeds and birds, the former of which was called, as I have already stated, flying at the fur, and the other, flying at the plume. Sometimes creatures of some size were chased by it, such as the goat. Of the chase of the animal by the falcon, old Hasselquist gives a very good description, albeit his narrative is remarkable for its paucity of periods.

“The Arabians hunt it (the rock goat) with a falcon. I had an excellent opportunity of seeing this sport, near Nazareth in Galilee. An Arab mounting a swift courser, held the falcon in his hand, as huntsmen commonly do; when he espied the rock goat on the top of a mountain, he let loose the falcon, which flew in a direct line like an arrow, and attacked the animal, fixing the talons of one of his feet into the cheek of the creature, and the talons of the other into its throat, extending his wings obliquely over the animal; spreading one towards one of its ears, and the other to the opposite hip. The animal attacked made a leap twice the height of a man, and freed himself from the falcon; but being wounded, and losing its strength and speed, it was again attacked by the falcon, which fixed the talons of both its feet into the throat of the animal, and held it fast, till the huntsman coming up, took it alive and cut its throat; the falcon drinking the blood as a reward for his labour, and a young falcon, which was learning, was likewise put to the throat of the goat; by this means are young falcons taught to fix their talons in the throat of the animal, as being the properest part; for should the falcon fix them in the creature's hip or some other part of the body, the huntsman would not only lose his game but his falcon also; for the animal, roused by the wound, which could not prove mortal, would run to the deserts, and the tops of the mountains, whither

its enemy, keeping its hold, would be obliged to follow, and being separated from its master, must of course perish."

In Persia, even the antelope is hunted with the assistance of falcons, who have been regularly trained to the sport by always having their food placed on the nose of a stuffed antelope.

In consequence, when an antelope is started, the falcon dashes after it, settles on its head, and, fixing its claws firmly, beats with its wings about the eyes of the poor animal, who becomes so bewildered by the strokes, that it suffers itself to be easily overtaken by the hunters.

In case the antelope should succeed in throwing off its assailant, another falcon is generally loosed soon after the first, and hovers over its predecessor, ready to take its place. And so, between them, the antelope has but a very slender chance of escape.

In Russia there is existing now a breed of hawks, which can attack and vanquish a fox, by striking at his eyes and blinding him. And some are so strong and fierce, that two of them can not only arrest, but actually kill without assistance, a wolf, by tearing his vital parts with their beaks, after they have pecked out his eyes. These hawks are taken in Siberia, and fetch very high prices.

Falconry is carried on also in India in much the same way as in other countries. There is one kind of hawk, a very tiny one, which is used for hunting quails, and is so small that it is carried in the hand instead of on it. From this peculiarity, the bird is called "mooty." When a quail or other small bird rises, the owner throws the mooty at it, just as if the bird were nothing more than a stone. The hawk immediately collects itself, and generally succeeds in killing the game. A mooty has been seen to kill in this way nearly a dozen quails in succession.

There is no want of hawks in the wild state, for they hover about the habitations of man in great

numbers, for the purpose of obtaining food. Williamson says that they actually darken the air if they discover any new prey. And their audacity is so great, that they have no hesitation in snatching at food even out of the hands of the servants that carry it, so that it is necessary to have also one or two attendants armed with long sticks, for the purpose of intimidating the hawks. Even this precaution fails sometimes, and they have been seen to pounce upon the tables and carry off a fowl or a quarter of a kid with them.

And even when sportsmen are shooting near the jungles, the hawks, especially the sparrow-hawks, hover round, and take advantage of the fright occasioned to the little birds by the report of the gun, pouncing on them with the utmost impudence, before the very nose of the dogs. As for themselves, they do not seem to fear the report in the least; and frequently snatch up the wounded birds and carry them off before either servants or dogs can reach them.

The same habit is sometimes noticed in England, and probably would be more common if the hawks themselves were less rare. In White's "Selborne" there is a note by the author narrating that a hen harrier continued to hover about a sportsman (who, by the way, could not have been much of a shot, as he missed three birds in succession), and to chase the pheasants that were fired at. Markwick also adds a note relating a similar circumstance of the peregrine falcon, which he calls the ring-tailed hawk. When out partridge shooting with a friend they saw a falcon fly away with a large bird in its claws. They fired at the marauder, and found that it had caught one of the partridges after which they had set out. And on the succeeding day a hawk dropped from its talons another partridge, which was bleeding from a recent wound on the head, but also was marked with clotted and dried blood on the wings. The

falcon had evidently got hold of a bird that had been wounded on the preceding day.

He also very innocently testifies to the bad shooting of himself and friends in another anecdote, where he relates that "a woodcock flew across us, pursued by a small hawk; *we all three* fired at the woodcock instead of the hawk, which, notwithstanding the report of three guns close by it, continued its pursuit of the woodcock, struck it down, and carried it off."

Although, as a general fact, hawking is not much in use in this country at the present day, yet it appears that one branch of it yet survives, and is followed eagerly, although, being confined to a select society, but few are aware that it even exists.

The following account of the sport is taken from an article in the *Illustrated London News*, accompanied by a very spirited sketch of the chase:—

"The hawks to be used in this flight should be a cast of male peregrines, called by falconers 'tiercels.' The day should not be too sunny or windy: a calm, dull day is the best; and the country open, with a pretty good sprinkling of magpies upon it. Before the hawks 'leave the hand,' it is well to explain the part the field should take in the amusement. They should be informed that dogs are not allowable; that upon seeing a magpie they should observe a strict silence until the hawks are cast off. It should also be explained to them that, as the magpie makes up for its want of speed upon the wing by wonderful cunning and activity, he proves himself to be no easy bird to kill with hawks. Indeed, a flight may last from twenty to forty minutes.

This being the case, the falconer requires every assistance from all present, and this help should be thus rendered:—The magpie knows that his safety depends on avoiding the stoops of the hawks, and he escapes them by taking short flights near the ground, from bush to bush, or along a hedgerow, &c.; being

well aware that the hawks dare not strike at him in such situations for fear of injuring themselves. The great object of all is, consequently, to make Maggy cross the open country, where the hawks have a chance of stooping fairly at him. Supposing, therefore, that the magpie has been driven into a hedge by the hawks, both horseman and 'footies' divide on each side, and make a large circle round the magpie, so as to have him between them. Each party then rapidly approaches the other, and with whips, sticks, and voices endeavour to force out the magpie, which, being thus surrounded, flies clear of cover, giving the hawks, which are 'waiting on,' room for a stoop, which, however, the quarry will frequently avoid by 'shifting its flight;' *i. e.*, turning rapidly in the air, which throws out the hawks, and thus is enabled to regain the cover.

"No time must then be lost in driving him out as before, for the hawks, it must be recollected, are all the while exhausting their strength upon the wing whilst Maggy is resting—ay, perhaps concocting some sly dodge to do his enemies. 'Whoop!' proclaims the kill, when all should fall back, that the falconers may secure the hawks. The first up at the death may claim the tail, which makes a pretty ornament to wear in a cap.

"One great feature of this sport is that no one need be idle; all may join in it and be of use. In fact no quarry gives more sport than the magpie; and this flight has several advantages over others; for instance, it is never too rapid, on account of the quarry being slow in a straightforward flight; and it is easily seen, being so conspicuously marked. As to the sport itself, few scenes can be more exciting than a good field of ladies and gentlemen on horseback, and on foot, some galloping, some leaping, some tumbling, others using their whips, and some their quarter staffs, to beat out and frighten the magpie which has 'put in' to cover.

“Then when Maggy is pressed out, you have the wild cry of the falconers to call the attention of the hawks, which work and assist each other with all the sagacity of dogs—being encouraged, instead of frightened, by the noise and bustle of the field, which they evidently look upon as allies. Whenever the magpie leaves the cover sufficiently you have the most splendid stoops at him from each hawk in its turn, and the wary doublings and shifts of the quarry by which he so long avoids these blows are truly astonishing.

“Such a flight as we have been endeavouring here to describe may be confined to a few fields before we have ‘a kill,’ but if it be a good rideable country a good chase across it is most desirable—to secure which the magpie must not be headed, but be allowed to make ‘his point,’ which, like a fox, will be straight to his stronghold, the nearest wood or cover.”

As to the goshawk, we very seldom hear of its presence in England, although it is common enough in many parts of the Continent, especially in Denmark, Sweden, &c. It lives almost entirely in the depths of forests, which is an excellent reason for its departure from England. For, alas! the forests are falling in every direction, and even my own pet wood, in which I have been so often lost, is now dwindling away beneath the cruel axe.

Once upon a time, as they say in fairy tales, I was used to enter that wood in the early morning and to stay there until late at night, watching, and sometimes catching, the infinite variety of animal life that was found there. For there were many kinds of soil, consequently many kinds of plants, and as a consequence of that, many kinds of living creatures; some attracted by the plants themselves, and others by the insects that fed upon the plants.

In that beautiful wood, every square yard of which was familiar to me, I used to roam, armed with

gauze net, bottles, boxes, an army of pins, and a hat lined with cork. No one ever meddled with me, except now and then a keeper, who would push his leather-capped head through the bushes where he was lying in ambush for poachers, and demand an account of my proceedings. It is singular to think how much argument was expended on him and his colleagues before they could comprehend that any rational being would go out "fly-hunting," as they termed my entomological pursuits; nor were they persuaded, without manual probations and inspections of my hat and bottles, that the delicate green silk gauze net was not intended for the purpose of catching pheasants and hares. There was some shadow of justice in their suspicions of the net, for it was one of rather peculiar form, being held open while in pursuit, and suffered to shut up with a loud snap when the insect was fairly within the rim. The worthy keepers thought that it was a clever kind of gun, being deceived by the brass work about the handle.

A few years ago I went to revisit my juvenile haunt.

All was changed when I reached it. There was a horrible paling set up, smeared with gas-tar, and decorated with a notice, fulminating penalties against trespassers. However, I determined to revisit the well-remembered scenes, scaled the gate in spite of the gas-tar, and penetrated into the wood. There a dreadful sight met my eyes. Hundreds of oaks had been cut down, and were lying prostrate, stretching their white skeleton limbs in all directions, while their bark was regularly ranged in rows, undergoing the process of drying ready for the tanners.

And on going further into the wood I got fairly lost, for the old landmarks had been cut down, and there was little chance of getting bearings without them. Only two spots could I find—the one where I contrived to cut one of my fingers nearly off by fall-

ing down with an open knife in my hand, the blade of which closed over my fingers; and thereupon fainting, found on recovery that I had been reclining on a nest of wood ants. The second spot was where a party, having spent most of the day in the wood, determined on getting up a sham murder, and did so effectually, by piling withered fern in a heap where it just was *not* hidden, tearing down a few branches, kicking up the ground to imitate the traces of a struggle, and hanging here and there on the thorns bits of feminine apparel begged from the ladies, whose costumes had somewhat suffered in scrambling about the bushes.

There is, or rather was, a history in every opening of that wood. In such a place I caught the first little ringlet—which, I beg to observe, is a butterfly, and not a lady; in another place I lay for hours watching the vagaries of the comical little rabbits; in another we played at hide-and-seek, which is a mightily pretty game in a wood under some circumstances; in another spot was the gravel pit, into which I tumbled when chasing a butterfly with too much eagerness, and the pit being a wet one, emerged therefrom in a singularly uncomfortable condition of body and temper.

But now all is gone, and I could find none of them, even with a compass. And so, just as the destruction of the forests, together with the gas-tar, drove me away, so are the falcons driven away to seek for fresh homes in a more hospitable land.

The Orientals appear to attribute great powers of mind to the birds of prey. Indeed it is curious to see how most nations except our own race pay respect to the intellect of the brutes and birds. For example, in North Africa the natives seldom mention the word lion, but speak of him in whispered tones of awe as “my lord with the large head.” In Southern Africa, too, the Bosjesman is fully persuaded that the lion is a great king, and when he is about to slay

one with his terrible little poison darts, he makes an oration as an apology.

I have heard a Bosjesman make this oration, which he did to a stuffed lion-skin. It was really a wonderful piece of eloquence. There was a platform prepared with bushes and trunks of trees, so as to represent part of a wood, and behind the bushes was laid the stuffed representative of the lion.

The little Bosjesman then made his appearance, dressed in a leopard-skin kaross, his bow strung over his shoulder, a pair of assegais, or spears, stuck in his girdle, and a dozen or so of poisoned arrows radiating from his head, like the representations of Apollo as Helios. He was supposed to be going on an expedition after some breakfast, and accordingly crept on with a noiseless step and a restless eye that reminded the spectator strongly of a cat in search of a mouse that she smells but cannot see. And the tiny morsel of humanity acted his part so well that when he pretended to step on a thorn and stopped to pick it out of his foot, no one seemed to think that it was only acting after all.

On he went, now and then picking up an imaginary object, smelling it, and casting it aside, or catching a stray beetle or locust, and nibbling it with much relish. Presently he came in sight of the sleeping lion, and down he dropped in a confused heap that no one could possibly have guessed to be a human being: it most resembled a bundle of withered leaves and sticks, the leaves being admirably represented by the spotted kaross, and the sticks by the shafts of the arrows and spears.

The bundle of leaves then slowly glided backwards by some imperceptible mode of movement, and when fairly out of the lion's reach first the head was cautiously raised from the heap, then the arms made their appearance, and at last the whole creature slowly and silently rose to his feet. He now cautiously crept to the bushes, and peeped through them at his sleep-

ing foe, and having made quite sure of his position, retired to the further end of the platform and prepared for action.

The arrows were separately examined, their points reversed, and then replaced. The bow was slipped over his head, or rather he seemed to emerge out of the bow, and the string proved. The assegais were then carefully fitted into the belt; and taking a thick stick in his hand, the tiny hunter commenced one of the most animated speeches that I have ever heard. It was translated by the keeper, but in itself was not particularly intelligible, being much as follows:—

“Cluck-clock-clack! Whew! Wow-row-yow-cluck clack-whoosh-cluck! Sh-h-h-cluck-sh-h-h-clack-sh-h-h-click-clack! Hoo-clack-click-cluck-whoosh-sh-sh-sh-clack!”

That is a tolerably correct representation, as far as it is in the power of letters to convey an idea, of the first few sentences of the Bosjesman's speech. The reader will be pleased to say the words as fast as he can, and to make all the clacks in a manner similar to that which an omnibus driver employs in encouraging his horses. He must be *very* particular about this point, for the whole meaning of a sentence in the Hottentot and Bosjesman languages may be reversed by a difference in the expression of the cluck. It appears to be a very comprehensive language, as the only word which I could really catch was “Quah,” which being often used as a remonstrance to the Bosjesman when he got too much excited, appeared to mean, “Come, now, do be quiet, and you shall have a pipe when you have finished your exhibition,”—for he bargained for the pipe in the middle of the exhibition, and having obtained it was pacified.

Be this as it may, the interpretation of his speech was couched in such terms as these:—“Great lord, I am about to shoot you with poisoned arrows. You will be angry with me; but you will sleep, and then you will die. Great lord, do not be angry with me,

for you have forced me to kill you. Great lord, I have not gone into your country, but you have come into mine, and the land will not hold a great lord like yourself as well as me. So I must kill you. Great lord, you have come to carry away my oxen after I have taken so much trouble to steal them from the big white men, and you ought to be ashamed of yourself. Why do not you go and steal them for yourself with your sharp teeth and your long claws? Great lord, I am coming to shoot you." There is plenty more of it, but it all seems very much in that strain.

The little man then again crept forward until he was standing close by the sleeping lion, and slowly raised the big stick in both hands.

Then he suddenly leaped from his deliberate caution into the most startling activity. Down came the big stick on the lion's back; the stick was hurled away, and the tiny form was seen darting backwards through the air in a spring perfectly terrific considering the size of the little being. Between the time that the stick fell on the lion's back and the time when he touched the ground again, three arrows had struck into the stuffed skin with a sound like three sharp and rapid claps of the hands. His feet came to the ground, and the bright point of the assegai was seen quivering in the light as he brandished it in his hand, a flash like as of lightning was seen for a moment, there was a whirring sound like that of a stone thrown from a sling, and with a dull heavy thud the assegai buried itself in the lion close upon the arrows. Down he fell in an undistinguishable heap as before. The entire movement was so rapid that I could hardly see the little creature extract the arrows from his head or draw the assegai from his belt; and between the moment when he struck the lion to the time when he again crouched on the ground appeared to take up about as much time as four ordinary walking steps.

Then, again, on looking over the field sports of two opposite quarters of the globe, namely, Norway and America, a very similar idea prevails respecting the bears. The Scandinavian hunter—and, indeed, every real Swede or Norwegian—speaks of the bear with bated breath and by another name—sometimes denominating him as the “gentleman in the fur cloak,” and sometimes, with more of poesy in the idea, the “Disturber.”

There is another curious Scandinavian idea about the falcon, which receives the poetical but slightly singular-looking name of the “Bird of Yggdrasil,” on account of a portion of the involved but very suggestive mythology of that land. The vital principle of the world is typified by the sacred ash of Yggdrasil, and upon the topmost branches of this ash is seated an eagle, bearing a falcon perched between its eyes. The typical meaning of the eagle is Energy, and of the falcon Activity.

The American Indian, in a similar spirit, propitiates the manes of a bear which he has killed, by blowing tobacco smoke into the dead creature's mouth, and performing a number of other mystic ceremonies. Otherwise, he would fear the return of the ghost of the bear to take vengeance on his murderer.

So, among the Persians, the falcon is honoured in a similar spirit, and there are poetical tales on record concerning the bird. One of these tales runs thus :—

Once upon a time, a king of Persia went out hawking, carrying his favourite falcon on his wrist. A deer started up, and the king let fly his bird, which pursued the deer, and, finally, brought it to the ground. The king, being eager in the chase, outstripped all his attendants and courtiers, and, at the death of the deer, found himself alone.

He took the falcon again upon his wrist, and, remounting his horse, began to search for water, for

the chase had been a very severe one, and he was exceedingly heated and thirsty. At last he discovered, at the foot of a mountain, a stream of water, that came trickling down among the rocks. So he took out of his quiver a little cup, and, with some trouble, filled it at the spring—for the water dropped very slowly. By patiently waiting, however, he filled the cup, and raised it to his lip. Just as his hand was raising the cup, the hawk clapped his wings, and upset the contents.

The king was vexed at the interruption, but, thinking it an accident, he again applied the cup to the gently-trickling stream, refilled it, and again raised it to his lip. A second time the falcon shook its pinions, and threw the water out of the cup. The king was so angry with the bird that he dashed it to the ground in his rage, and killed it on the spot.

Just then, one of his attendants came up, and the king, giving him the cup, desired him to wipe it clean, and to bring him some of the water. But he was so very thirsty that he had not patience to wait for the filling of the cup drop by drop, and directed the servant to climb up the rocks, and fill it at the spring itself.

The servant obeyed his master, and when he had reached the top of the rock, he discovered there a crystal spring, at which he filled the cup. But, a little lower down, he caught sight of a huge serpent lying dead, with its head resting in the course of the stream, and polluting the water with the poisonous foam that issued from its jaws.

He presented the cup, and told his master of his discovery.

The king was much affected by the thought that he had, in his blind rage, destroyed the faithful bird who had endeavoured to save his master from ill, even at the risk, and, finally, at the cost, of his own life.

The story then goes on at some length to say that the incident had a happy effect on the king, who, being an irresponsible despot, had too often committed terrible severities when enraged. But ever after the adventure of the falcon and the snake he was accustomed to check his anger by reflecting on the consequences to which it had formerly led.

As to the kite, it used to be formidable enough to the farmer, and made numerous raids among his chickens, but now one never hears of any kites save those of paper, metaphorical or otherwise, so that the various fables in which kites bear a prominent part do not now possess their ancient force.

The kite is always associated with cunning, cruelty, and rapine, and seems to hold the same place among birds as the fox among quadrupeds, and the sharks among fish. Yet, the kite itself has a bright side to its character, and to show that bright side, I present the reader with an extract from Audubon's works. The name of the bird is not mentioned, but it is of one of the kites that Audubon is speaking, although not the same species as our English kite.

"Early one morning, whilst I was admiring the beauties of nature, as the vegetable world lay embalmed in dew, I heard the cry of a bird that I mistook for that of a pewee-flycatcher. It was prolonged, I thought, as if uttered in distress. After looking for the bird a long time in vain, an object which I had at first supposed to be something that had accidentally lodged in a branch attracted my attention, as I thought I perceived it moving. It did move distinctly, and the cry, that had ceased from the time when I reached the spot where I stood, was repeated, evidently coming from the object in view. I now took it for a young one of the chuck-will's-widow, as it sat lengthwise on the branch

"I shot at it, but, perhaps, did not hit it, as it only

opened and shut its wings, as if surprised. At the report of the gun, the old bird came, holding food in her claws. She perceived me, but alighted, and fed her young with great kindness. I shot at both, and again missed, or, at least, did not succeed, which might have happened from my having only small shot in my gun. The mother flew in silence, sailed overhead just long enough to afford me time to reload, returned, and, to my great surprise, gently lifted her young, and, sailing with it to another tree, about thirty yards distant, deposited it there.

"My feelings at that moment I cannot express. I wished I had not discovered the poor bird; for who could have witnessed, without emotion, so striking an example of that affection which none but a mother can feel? so daring an act performed in the midst of smoke, in the presence of a dreaded and dangerous enemy? I followed, however, and brought both to the ground at one shot, so keen is the desire of possession."

There is an old English name for this bird, namely "gled," which, on the authority of White, is derived from its peculiarly elegant mode of flight. The kite has a fashion of sailing in large circles, without any apparent motion of its wings, and from that reason is named the "glead," or "gled," from the Saxon verb "glidan," to glide.



KITE CARRYING ITS YOUNG.

CHAPTER VII.

HAWKS—CONTINUED.

The Kestrel, or Windhover.—A calumniated Hawk.—**The Field-mouse.**—**Moths and Housekeepers.**—**Nest of the Kestrel.**—**The Sparrow-Hawk.**—**Hawk and Hens.**—**Hawk-traps.**—**Ensnared Boy.**—**Tame Sparrow-Hawk.**—**Audubon's Hawk.**—**Nero.**—**Sparrow-Hawk and Martins.**—**John lays a "hegg."**—**John and Rosey.**—**Young of the Hawks.**—**Their Mode of eating.**—**Deformed Kestrel.**—**The Hen-Harrier.**—**Strephon and his Crook.**

THE kestrel is another English hawk, and, perhaps, the one most commonly seen. It bears another name, the windhover, which is derived from its curious mode of hovering on one spot, its wings continually shivering, and its head turned towards the wind.

I have very frequently seen the bird hovering in this way for hours at a time, quite regardless of wind or rain, and only varying its position by an occasional stoop towards the ground.

Many people, and especially the farmers, confound the kestrel with the sparrow-hawk, and shoot it accordingly; just as, in a detected conspiracy among men, the real leader generally escapes scot free, and some poor innocent individual gets all the punishment. If the farmers only knew what they were about, they would inflict a fine on any man who killed a kestrel or destroyed its eggs, for it is really one of the best friends they have.

There is a little red-furred, short-tailed, round-

nosed animal, called, vulgarly, a field mouse, which lives in amazing numbers among the grass of every field, and, by dint of numbers, does incredible damage to the corn. No one who has not regularly searched for these creatures has any conception of their numbers, for they hide so cleverly that only a very practised eye can see them. I really believe that there is hardly a square yard of grass in a meadow without its field-mouse, for I have seldom failed to discover the little animals whenever I chose to look for them, and I am sure that for one that I could find, there were a dozen that I could not see. Their fur is so nearly the colour of the ground that, as they creep among the stalks of the grass, they can hardly be seen at all, even when the grass is short.

In order to learn how to find these mischievous animals, I went through a process of training with one or two that were brought to me. I took one into a field of shortish grass, and let it go, keeping my eye on it, and arresting it when it got too far off. Then, after I had learned to follow the mouse with the eye, I turned my head away for a short time, and tried to discover the little animal again. And, although they were not out of my sight five seconds, I used to lose plenty before I learned how to find them again.

Yet, this very animal forms the chief food of the kestrel, and it is for that purpose that it hovers over the fields, and winnows the air with its wings. Some idea may, therefore, be formed of the sharpness of the kestrel's vision, for, when suspended some hundred feet or so in the air, it will see the tiny mouse creeping among the stalks of grass. Let a mouse but poke its head out of its shelter, and down comes the kestrel upon it. The piercing eye of this bird can thus detect at a distance an object so small in point of size, and so inconspicuous in point of colour, that the human eye can hardly distinguish

it from the ground at a distance of a couple of yards.

They are very useful birds, these kestrels, and it always makes me feel angry when I pass by a country barn and see the poor birds nailed on the doors, in company with rats and stoats. The fact is, that to the rustic mind, a hawk is a hawk, and must be killed accordingly.

There is much the same idea prevalent in the minds of sundry thrifty housekeepers, to whose cloth and woollen loving eyes, a moth is one of the most horrid of sights. Consequently, as, in their opinions, the moth eats the cloth and fur, it necessarily follows that the bigger the moth the more it can eat, and the more it ought to be killed. Supposing an elephant to be deprived of its mouth, and dependent for nourishment on its proboscis, I wonder how much hay it could eat. And yet, for an elephant to devour a whole hayrick under those unpleasant circumstances, would be an easier task than for a moth to eat up the hundredth part of an inch of my coat-sleeve. I have seen a worthy old dame "squidge," as she termed it, a great huge moth, merely because it had got into the house, and might eat some of the great-coats that were hanging on their pegs.

Because *Tinea vestianella* is injurious to clothes, the whole moth tribe are ruthlessly condemned to death, and because *Accipiter nisus*, alias the sparrowhawk, is very fond of chickens, our useful little friend *Tinnunculus alaudarius* dies.

Kestrels are useful to us in other ways than by the destruction of mice, for they are inveterate foes of the cockchafers, and catch them on the wing with great dexterity. This feat is accomplished by seizing the flying beetle in the claws, from whence it is transferred to the beak. Indeed, most of the carnivorous animals, whether birds, quadrupeds, or man, have a great taste for insects, and sometimes prefer them when other substances can be procured. The hawk will

eat beetles, so will the eagles—the lion and his allies are great consumers of locusts, in which banquet man bears them company. And even in our comparatively locustless country, do not we eat highly-populated cheese—to say nothing of certain game?

All the hawks appear to affect lofty trees or crags, whereon they may form their nests in comparative security. The kestrel follows the example of his relatives, but, if possible, saves himself the trouble of making a nest, by taking possession of the deserted home of a crow or magpie. He is especially partial to the latter, as the magpie's nest is constructed in a very artificial manner, and retains much of its strength even in its ruins.

Now for a few words about that mischievous and inconceivably audacious bird, the sparrow-hawk. Him the farmers may well destroy, for he is cunning as well as rapacious, and has such a very good idea of taking care of himself at the farmer's expense, that he deserves his gibbeting on the barn. The poultry know the sparrow-hawk well, and the hen calls anxiously for her chickens when the hawk is as yet but a dark speck in the air. Even when the chicks have been fairly under their mother's wing, the hawk has tried to snatch one away. And in such a case, the mother has been seen to fly at the intruder, and actually to drive him away ignominiously, despite of his beak and claws. In fact, the hen fairly hates the hawk, and in White's "Selborne" there is a very curious instance of the poultry exhibiting their hatred. The experiment partakes somewhat of cruelty, but is curious and interesting notwithstanding—perhaps the more so even for that very fact.

"A neighbouring gentleman, one summer, had lost most of his chickens by a sparrow-hawk, that came gliding down between a fagot pile and the end of his house to the place where the coops stood. The owner, inwardly vexed to see his flock thus diminishing, hung a setting net adroitly between the pile and

the house, into which the caitiff dashed, and was entangled.

“Resentment suggested the law of retaliation; he therefore clipped the hawk’s wings, cut off his talons, and, fixing a cork on his bill, threw him down among the brood-hens. Imagination cannot paint the scene that ensued; the expressions that fear, rage, and revenge inspired were new, or at least such has had been unnoticed before. The exasperated matrons upbraided—they execrated—they insulted—they triumphed. In a word, they never desisted from buffeting their adversary till they had torn him in a hundred pieces.”

The usual mode of destroying the sparrow-hawk is by powder and shot, but in that method continual watchfulness is requisite, together with an expenditure of powder and shot, and the very great probability of missing the bird entirely, and so losing at one fell swoop labour, ammunition, temper, hawk, and chicken. So certain traps have been devised, in which the bird becomes his own murderer. The machine most in use, as far as I know, is a combination of traps. Two common steel traps, or gins, are placed side by side, and between them is laid a dead rat, or chicken, or similar creature, as a bait. The bird is a suspicious creature, and it is not advisable to leave the traps long in the same place, or the hawks will find out their object. Precisely the same thing is the case with mice and rats, of whom you may take plenty when first the trap is set, but unless the position of the trap is continually changed and the baits altered, not a rat or a mouse will poke its nose into the door.

The amateur hawk-catcher must take care that he does not make himself the first victim to his own snare. It may appear an absurd caution, but it is really a necessary one, for I have seen many sets of fingers grievously indented by the teeth of a steel trap, which was sufficiently powerful to cause great

pain to the hand and detriment to the cuticle, although not quite such a formidable affair as Mr. Bertram's immortal engine, which, if a man got into it, would break a horse's leg.

Also, I have seen a human being taken in a trap that had been set for a stoat or hawk. I need not say that the being in question was a boy, for boys do continue to get themselves into such predicaments as cannot be conceived even by the fondest of aunts or grandmothers. I have seen a boy hanging on the face of a precipice by three fingers and one toe, while another boy had made that identical toe his own chief support. I have seen a boy deliberately jump from the top of a reasonably tall tree, and trust to the branches to catch him, he having seen the game-keeper in close proximity, and being engaged in oological pursuits in a preserve. I have seen a boy tumble off the parapet of a stone bridge, fall upon a projecting stone some fifteen feet below, and thence bound diagonally into the water, without receiving the least injury. I have seen boys scramble after martins' eggs up a soft sandstone rock, and thrust their arms into the deep holes, never heeding that if their fragile support should give way, their arms would be snapped off like carrots. I have seen them nine-tenths drowned, nine-tenths strangled, nine-tenths burned, and entirely blown up—as is likely to be the case, when they pour gunpowder upon a bonfire out of a powder-flask, or fill a hole in the ground with the same substance, and then light it with a lucifer-match.

It would be an endless task to say what I have known boys to do, and so I will sum up all by mentioning that there is one thing which I never yet knew a boy to do, and that is, to take any care of himself, his clothes, or his books. No, not even myself, for, personally, I contrived to break three bones and dislocate two joints, besides many instances where I certainly ought to have, at least,

broken my neck, while, as to the two latter items, others were more interested than myself and consequently better judges.

This little digression brings me round again to the hawk trap. I was on a furze-covered and rabbit-haunted hill, together with a party of boys, who of course diverged in all directions. Presently a dreadful shriek rent the air, followed by the most dismal and unmelodious howling imaginable. There was immediately a convergence of the scattered boys to the point from which the sound proceeded, and on reaching the spot, I discovered one of the boys standing, much in the attitude of a dancing bear, with both his hands dangling in front of him; while from one hand there hung a steel trap and its chain. I have seldom seen a more ludicrous sight, for the poor boy's eyes were quite round, and so was his mouth, from which proceeded most doleful howls. It appeared that he had seen the body of a rabbit lying, as he thought, on the heath, and, stooping to pick it up, he was instantly entrapped.

The sparrow-hawk is easily tamed, especially if taken when young, and is often of essential service in driving away or destroying the little birds that damage the seeds and fruit in a garden. I once kept one of these birds for this purpose, but I very much regret to say, that he was not of the least use, and, in fact, rather attracted than affrighted them. He was the most extraordinary coward, and the little birds knew it well. In consequence, they used to assemble for the purpose of mobbing and persecuting my poor hawk, and after chasing him up and down the gravel walk, among the cabbages, and into the woodhouse, they used to leave him cowering among the beansticks, and then adjourned to the currants and cherries for refreshment after their sport.

There were two birds especially that excelled in persecution, the wagtails and the tomtits—the former out of the mere exuberance of their spirits, and the

latter from interested motives. The wagtails would come over the wall with their peculiar jerking flight, settle on the ground in the very face of the hawk, wag their tails impudently, and then run at him open-mouthed. Whereupon the hawk would utter screams of fright, turn tail, and run away. But the tomtits were very wise birds, and had an eye to the main chance. As the hawk was afraid of little birds, and never seemed to catch any mice, it was evident that he must be fed, and he was accordingly favoured with a piece of raw meat every day. Now tomtits are quite carnivorous in their nature, and thought that the hawk had no more right than themselves to the meat. So they were accustomed to assemble about noon, and to wait until the hawk was fed; then, unless some one stood near while the bird was eating his dinner, down came the tomtits, and bullied him until he dropped the meat, with which they flew away, quarrelling among themselves as bitterly as they had harassed the hawk.

Audubon seems to have had better success than myself in his experiment with a tame sparrow-hawk. My own hawk was quite as fond of little birds as that whose life is recorded below, but it always required them to be quite dead. I really think that if its intended prey had retained sufficient life to give even the feeblest struggle, my bird would have run away.

Still, it is very possible that my hawk may have been ill-treated before it came into my possession, and so rendered cowardly. Audubon's account runs as follows :

“No bird can be more easily raised and kept than this beautiful hawk. I once found a young male that had dropped from the nest before it was able to fly. Its cries for food attracted my notice, and I discovered it lying near a log. It was large, and covered with soft white down, through which the young feathers protruded. Its little blue bill, and great grey

eyes, made it look not unlike an owl. I took it home, named it Nero, and provided it with small birds, at which it would scramble fiercely, although yet unable to tear their flesh, in which I assisted it. In a few weeks it grew very beautiful, and became so voracious, requiring a great number of birds daily, that I turned it out, to see how it would shift for itself. This proved a gratification to both of us; it soon hunted for grasshoppers and other insects, and on returning from my walks, I now and then threw a dead bird high in the air, which it never failed to perceive from its stand, and towards which it launched with such quickness as sometimes to catch it before it fell to the ground.

"The little fellow attracted the notice of his brothers, brought up hard by, who, accompanied by their parents, at first gave it chase, and forced it to take refuge behind one of the window-shutters, where it usually passed the night, but soon became gentler towards it, as if forgiving its desertion. My bird was fastidious in the choice of food, would not touch a woodpecker, however fresh, and, as he grew older, refused to eat birds that were in the least tainted.

"To the last he continued kind to me, and never failed to return at night to his favourite roost behind the window-shutter. His courageous disposition often amused the family, as he would sail off from his stand, and fall on the back of a tame duck, which, setting up a loud quack, would waddle off in great alarm, with the hawk sticking to her. But, as has often happened to adventurers of a similar spirit, his audacity cost him his life. A hen and her brood chanced to attract his notice, and he flew to secure one of the chickens, but met one whose parental affection inspired her with a courage greater than his own. The conflict, which was severe, ended the adventures of poor Nero."

The instinct that teaches little birds to mob hawks

and owls, appears to be much of the same nature as the impulse which urges little boys to irritate and tease policemen. And, just as it sometimes happens that the small boy oversteps the legal boundaries, and is straightway captured by the blue-coated functionary, so an unfortunate little bird presumes too much on its own activity, and becomes a victim to its own temerity, by falling into the clutches of the hawk.

I rather fancy that the hawk takes advantage of this propensity on the part of the little birds, and permits itself to be mobbed, in order to get a chance of securing one of the persecutors. For I am sure that a hawk of ordinary capacity could outstrip any little birds in a race of a few miles, not excepting the swallows themselves. And, when hawks have been thus mobbed, I believe that they almost invariably fly vaguely and slowly. I have seen such a case myself, and was struck by the apparent imbecility of the hawk's conduct, until the last minute or so, when my opinion changed.

I was walking in a curious lane, that had been cut through a red sandstone hill, so that the level of the fields was some fifteen feet or so above. The cattle were prevented from tumbling into the road by a bushy hedge that was planted on the margin, and which sent out long streamers of bramble, that had taken root here and there down the rock, and overhung the road in thick clusters. This was an admirable locality for the sand-martins, who had taken up their abode in great numbers, and had quite honeycombed the rock with their nest-tunnels. It was a beautiful summer's day, and the martins were flying about as thick as gnats under a tree, filling the air with their weak but musical little chirp, and glancing in the sun like white butterflies.

Presently their chirps ceased, the martins all disappeared, and a singular hubbub began on the opposite

side of the hedge. The tumult increased, and in a few minutes a sparrow-hawk came over the hedge, and flew down the lane, accompanied and surrounded by a perfect cloud of the martins, who were screaming with all the power of their throats, dashing by him and striking him with their wings as they passed. The hawk was apparently quite bewildered by this treatment, turned round and flew back again, followed by the martins, still buffeting him, and screaming triumphantly.

Suddenly, there was a dead silence, all the martins scattered off on every side, like the sparks from a catherine wheel, shrieking with fear, not with triumph. And then I saw the hawk quietly sailing away, carrying in his claws a wretched little martin, who was vainly screaming for help from his terrified friends. The hawk sailed up in the air and disappeared with his prey behind the same hedge from which he had come, and I saw no more of him.

I am acquainted with a tame sparrow-hawk who goes by the name of John. Accident, however, told us that the name ought more appropriately to have been Joan, for one day the servant boy came running in, blazing with excitement about something which he held in his hand. "Look here, sir! John's laid a hegg." And so she had, and the egg was a real one, although it came to nothing, for John would not sit upon it, or perform the duties of a mother to her offspring.

I cannot make up my mind to pay to such an unfeeling personage the deference generally due to her sex, of which she is evidently unworthy, and, therefore I shall follow the custom of the house, and treat John as if she were he. When John was younger, he was rather playful, and had struck up a great friendship with a comical little puppy of the Skye-terrier breed, whose name was Rose. These two animals used constantly to play with each other, and, indeed, it generally happened that Rose was

much more ready for a game than her friend, whom she rather teased in consequence. Their game consisted of a mock fight, as indeed seems to be the case with all the lower animals, and, not unfrequently, with man himself, whose snowball matches in childhood, and love of boxing, single-stick, and fencing, in youthdom, seem to be the necessary results of his animal nature. In our days, and in our time, this combative faculty generally subsides when the youth becomes a man, at all events, as far as its physical nature is concerned. But there were times when to fight was the business of life, to which everything else gave way, as may be seen in the accounts of the manners and customs of the twelfth century, in which days the scholar and philosopher was either despised as a book-worm, or dreaded as a magician, and he was the finest gentleman who could strike the hardest blow.

So, carrying out this principle, John and Rosey were accustomed to play with each other, their sport now and then becoming earnest. The great point to be played for was that either party should be able to seize the opponent without suffering retaliation. In this exercise the hawk was very clever, and as it had one wing clipped, always contrived to keep the dog on the side of the shortened pinion, so as to give it as little hold as possible. Thus they would dodge round each other for some time, the dog trying to pass to the side where the wing was left entire, and at which it could snap with greater ease, and the hawk as carefully defeating the designs of the dog. Presently, Rosey would be tired of the sparring, and rush tumultuously at the hawk, who, throwing himself on his back, stuck his claws in the fur of the dog's throat, and suffered himself to be carried about, still hanging on Rosey's throat, and boxing her ears with his wings. Rosey would be half blinded by this proceeding, and after some violent struggles would shake off the hold of the claws and try her success a second time.

On one occasion the hawk was miserably discomfited; for in shifting to avoid a sudden attack at his wing, he twisted round so fast that the snap intended for his wing took effect in his tail. Rosey was immensely delighted at her unexpected success, and set off at full speed round the yard, dragging after her the unfortunate hawk, who screamed piteously for help, and in vain tried to arrest his progress by grasping at the pebbles and sticks that were lying on the ground. I think that the wretched bird would have lost his tail entirely had not he been rescued by a bystander.

This bird still retains many of the instinctive propensities of his wild life, although they are quite useless in his state of comparative civilisation. He always chooses some perch where his form and colour harmonise with the shapes and tints of the objects surrounding him; so that an unpractised eye would generally overlook him, even at a very short distance. But he is much afflicted in mind at the presence of strangers, and accordingly neutralises the effect of his concealment by uttering ear-piercing cries if a stranger should come near his perch. Those screams of his are wonderfully loud, and seem to penetrate through the head of any one who is near when he chooses to exercise his voice.

Before proceeding to the harriers, the last species of hawks of which I shall speak, I must here insert a few remarks that I had inadvertently omitted, one relating to the goshawk, and the other to the kestrel.

The young of the goshawk is of a very funny aspect, being something like a turkey chick in form, while it is clothed with a dense plumage of white down. It is not able to assume the bold and independent carriage of the hawk until it is four months old, at which time it first stands erect, the former portion of its life being spent in a comparatively stooping posture. Some of the habits of the adult

bird are very singular, even when it is confined in a cage and necessarily deprived of much of its native energy of character. The real nature of animals, whether human or otherwise, generally shows itself at meal-times; and therefore the best time for watching living creatures in order to detect their dispositions is when they are feeding or ready to be fed. As to the human part of creation, the reader may here draw his own deductions; but as to the inferior creation, and more especially the goshawk, the mode in which it seizes and devours its food is sufficiently curious.

When the owner of some captive goshawks presented to the bars of their cage a little bird, one of the hawks would thrust his foot between the bars, grasp the bird, and drag it forcibly into the cage. He then carried it into one of the corners of the cage, laid it down, and spread his wings over it, much in the same way as a bat cowers with outspread wings over a fly or piece of meat. This is a necessary precaution on the part of the hawk, whatever may be the reason for the conduct of the bat; for the other hawks were accustomed to make charges at the happy possessor and try to carry off his prize. It was noticed that the hawk always grasped the little bird tightly round the neck with its claws, and then killed it by a stroke of the beak upon its head, which part it devoured first.

Thus much for the goshawk, who must now give place to his humble relative the kestrel.

It is not often that we see wild animals suffering from infirmities, as they generally die when very young if they are afflicted in any way. And besides, the natural instinct that teaches birds and brutes to fight for their partners usually secures the benefit of strong and healthy parents. But I have now to relate a curious example of a bird suffering under a disease very rarely seen even in man, and almost entirely exiled from the brute creation.

This bird was a young kestrel, whose character and habits so closely resemble those of the legendary fairy changelings, that if there were such things as hawk fairies, the accipitrine poets and romancers might have made much of such a foundation for verse or prose. It was tame enough, but of weird-like aspect, having strange angles in its anatomy in unexpected places. It did not stand or walk like its brethren. It was always hungry, and ate great quantities of meat, which did not appear to have much effect in quenching its eternal hunger, and none at all in bringing it from its gaunt, ungainly aspect to a respectable, hawk-like shape. At last it finished its life by dying in spasms.

The owner dissected it, in order to obtain some clue to its peculiarities, and on removing the integuments a most singular state of things presented itself. Hardly a single bone in the body of the poor bird had escaped fracture, scarcely a joint had escaped dislocation. One of its thigh-bones had been broken in five places, and the other in four. The spine was crooked, and the legs were twisted out of all shape. There were more than twenty fractures in the large bones alone. It was thought that the bird might have thus suffered from want of food in sufficient quantity or quality; but on inquiry it was found that it had been brought up with other hawks, and fed like them on mice and small birds. All its companions were perfectly healthy, while it alone was afflicted with this singular disease.

The last hawk which I shall mention is the hen-harrier. The harriers can easily be recognised among the hawks, as they possess a partially-developed feathery disk round the eye, something like that of the owls, but not quite so large or so conspicuous. They are usually found about forests and on extensive heaths. The flight of these birds is low, and they are clever at detecting game, although they seem to have but little power over it unless it takes to wing. When

pressed by hunger they are very bold, as will be seen in the account given by Gilbert White:—

“A neighbouring gentleman sprung a pheasant in a wheat-stubble and shot at it, when, notwithstanding the report of the gun, it was immediately pursued by the blue hawk, known by the name of the hen-harrier, but escaped into some covert. He then sprung a second and a third in the same field that got away in the same manner, the hawk hovering round him all the while that he was beating the field, conscious, no doubt, of the game that lurked in the stubble.

“Hence we may conclude that this bird of prey was rendered very daring and bold by hunger, and that hawks cannot always seize their game when they please. We may further observe that they cannot pounce on their quarry on the ground, where it might be able to make a stout resistance; since so large a fowl as a pheasant could not but be visible to the piercing eye of a hawk when hovering over the field. Hence this property of cowering and squatting until they are almost trod on, which no doubt was intended as a mode of security, though long rendered destructive to the whole race of *gallinæ* by the invention of nets and guns.”

As to the name of “harrier” which is given to it, I believe that it is on account of its habits when hunting game, which are thought to resemble those of the harrier hounds when in pursuit of the hare. However that may be, the boldness and activity displayed by these birds will acquit them of the charge of effeminacy that is bestowed upon harrier hounds by enthusiastic fox-hunters. I remember that there is a story of a thorough-bred Galway fox-hunter, who had come over to England and was invited to join the hunt. He found out that he was to hunt the hare with harrier hounds, and appeared at the meet equipped for the occasion in evening dress, wearing morocco slippers on his feet, and gravely bearing an open umbrella over his head.

Absurd as he might have looked, I have seen subjects quite as mal-apropos. I have seen a sailor waiting in a shower of rain under the shelter of a black umbrella; and, if it be possible, a still more unexpected sight. A flock of sheep was passing under my window, and as there is a junction of four roads, there was necessarily a turmoil, on account of indecision on the part of the sheep. The dog was in great force, and not at all sparing of his voice, so that I went to the window to watch the result. There was a sharp shower falling, and to my very great astonishment I beheld the shepherd standing in the middle of the road and issuing his directions from beneath an umbrella, which the worthy man had lashed to the butt end of his crook. Arcadian deities! The shepherd's crook was decorated with a gingham umbrella instead of blue ribbons, and the pipe in his mouth was of clay. Call him Strephon, and the thing is complete.

CHAPTER VIII.

OWLS.

Wizards and Owls.—Pallas Athene.—Barn Owl.—Why called Jonathan.—Oxford Owls.—Peculiar Flight of the Owl.—The Pellets.—Mode of eating Mice.—Mobbed by little Birds.—Gilbert White on the Barn Owl.—Captive Owl.—Mode of Fighting.—Owl and Cat.—Structure of Eye.—Rough Surface of Egg.—Owls and Pigeons.—Owls and Magpies.—Respectability of the Owl.—Duck-hunting.—The baffled Rustic.—Owls used as Decoys.

THE falcons are essentially birds of day, and the owls, their relatives, are as essentially birds of night. For this object they are peculiarly formed, both in their plumage and their general anatomy. So completely are they birds of night, that they have been almost generally acknowledged emblems of darkness and the works of darkness. What incantation scene is considered as complete, without the presence of the owl, the cat, and the toad. Master Owl has to glare, puss has to swell visibly, make her eyes green, and mew horribly, while the duty of the toad is limited, and consists chiefly in sprawling.

And, should circumstances prevent the attendance of this worthy trio, their stuffed skins were found nearly as efficacious as the living animals, and probably, had quite as powerful effect on the minds of the uneducated who resorted to the wizard. For owls are generally inclined to sleep just when they are wanted to remain awake, and their quadrupedal friends the cats are also troubled with somnolency. But when they are stuffed, it is always possible to make them a pair of beautiful green glass eyes, and to light them up on occasions.

I must confess that the authors of these practices were very clever personages, for they certainly contrived to get together every natural object to which a superstitious interest had been given, and to employ it for the benefit of their own purses. In former days, too, owls were much more common than they are now, so that they had a greater hold on the public imagination.

There is something very wizard-like about the entire aspect of the owl, and it presents an appearance of preternatural sagacity, that well warrants the ancient Athenians in terming it the bird of wisdom, and giving it as a companion to Pallas Athene. It is a bird peculiarly adapted to be placed on coins, for its form is so distinct from that of any other bird, that even when rudely stamped on copper, it stares out of the metal unmistakably owlsh and wise. It is one of the creatures that any child can draw—a big round head, two corresponding eyes, a short hooked beak, and there is your owl. Consequently it figures largely in the hieroglyphic characters both of past and existing nations.

Of the British owls, the barn or white owl is perhaps the most common. It is possessed of a most unmusical voice, which it loves to exert at night-time, from which custom it is also called the screech owl. When captive, I observe that many people call it Jonathan, without the least reference to sex, just as a cat is always termed “puss,” and a parrot, “Polly.” It is a peculiarly useful bird, as it feeds largely on mice, although not exclusively, as it has no hesitation in eating a finch if such a thing should fall in its way, and it also picks up plenty of beetles and other insects, probably by way of dessert.

It frequents barns, old buildings, the towers of churches, hollow trees, and similar localities, preferring to place its habitations in darkness, as the light of day offends its eyes. There are great numbers of owls about Oxford, as the public buildings

afford them admirable roosting places among the stonework, where however they are rivalled by the starlings and jackdaws. There are also great numbers of old trees in which the owls make their nests—if nests they can be called. In the long vacation, the colleges are deserted; and I have repeatedly been the only inhabitant of my own college except the porter. The owls used then to come sailing about the quadrangles, and repeatedly brushed against my windows, to which they were attracted by the light, or probably by the moths that are always to be found hovering near a light on summer nights.

The flight of the owls is very curious, and, in my eyes, very beautiful. I have often stood against the trunk of a tree to observe the owls as they flew about the place, searching every yard of ground for game. As I was in a line with the trunk of the tree, and absorbed in its shadow, the birds very seldom saw me, and used to act as fearlessly as if they were lords and masters of the place. They were especially beautiful on fine moonlight nights, as they were apparently wafted among the shadows of the trees, for their white plumage would at one time appear mysteriously from the shadows like an animated snowball, and then, in a moment, disappear as mysteriously. No sound of wings gave notice of their approach, and they might pass within a couple of yards without calling attention.

Their flight is not by any means rapid, probably to guard them against injury from objects against which they might strike themselves, and they hardly seem to have any definite object when on the wing, but appear to be blown about by the breeze as purposeless as a bunch of thistledown—to which, indeed, they bear no small resemblance on a dusky night. It is rather curious, too, that the twilight apparently diminishes their size.

Their noiseless flight is evidently intended to prevent the mice from hearing the approach of their de-

stroyer, for the mouse is a nocturnal animal too, and goes abroad looking for a breakfast precisely at the time when the owl wants a breakfast for himself. And the natural result is, that instead of finding a meal, it becomes one.

It is a custom with predacious birds to eat perfectly innutritious substances together with the flesh of their prey, and to reject those portions which they are unable to digest. On account of this circumstance, it is easy to discover the nature of the food of the owls, as they always deposit their rejectamenta in their nests, where they dry, and serve as a soft floor on which the eggs are laid. I have often found and examined them, and there discovered the fur and bones of mice, the remains of several insects, but mostly of beetles, principally of the genera *Agonum*, *Abax*, *Steropus*, and *Carabus*. I think too that I have detected the wing bones of bats, but will not be quite certain, as my specimens were thrown away as rubbish by a worthy old person, afflicted with a mania for clearing up and putting to rights. It is said that feathers are never found in them, but I certainly have seen the feathers of some small bird adhering to the pellet, although they might have become attached to it after its rejection from the stomach.

That the barn owl will eat little birds is quite certain, as I used to feed my own specimen with mice and birds, which it always devoured in two distinct modes. If a mouse were presented, the owl would seize it by the bill across the back, and give several sharp bites or snaps. It would then wait for a minute or two with the mouse in its beak, then throw it in the air and catch it by the head. Another jerk then disposed of the entire mouse with the exception of the tail, which remained hanging out of the side of the owl's bill, where it was rolled and twisted about, as if it were a halfpenny cigar in the mouth of a boy learning to smoke against the grain. After the bird has smoked the tail to its content, it gives its head

another jerk, and the tail follows the rest of the body—not to be pulled out by the tail, as befell the mouse that nearly choked the cheese-loving Welshman.

I have given the bird very many mice, and never saw it deviate from its established rule. But if a small bird were given to it, the owl always tore it to pieces, and swallowed it by morsels, including many of the feathers. If, then, it will always eat little birds when it is domesticated, it may very probably do so occasionally in its wild state.

Whether it is naturally an enemy to the smaller birds is thus left an undecided case, but they are at all events an enemy to the owl, and if they catch a glimpse of an unfortunate owl that has by mistake shown himself in open daylight, they come round the poor bird in troops, and persecute him unmercifully, while the owl is so blinded by the unaccustomed light, that he does not know where to turn or what to do.

Gilbert White was a great admirer of the owls, and watched their manners closely, even noting their mode of taking their prey, and shifting their hold as they entered their nest.

“We have had, ever since I can remember, a pair of white owls that constantly breed under the eaves of this church. As I have paid good attention to the manner of life of these birds during their season of breeding, which lasts the summer through, the following remarks may not perhaps be unacceptable. About an hour before sunset (for then the mice begin to run) they sally forth in quest of prey, and hunt all round the hedges of meadows and small inclosures for them, which seem to be their only food. In this irregular country we can stand on an eminence, and see them beat the fields over like a setting-dog, and often drop down in the grass or corn.

“I have minuted these birds with my watch for an hour together, and have found that they return to their nests, the one or the other of them, about once in

five minutes; reflecting, at the same time, on the adroitness that every animal is possessed of, as far as regards the well-being of itself and offspring.

“But a piece of address which they show when they return loaded, should not, I think, be passed over in silence. As they take their prey with their claws, so they carry it in their claws to their nest; but as their feet are necessary in their ascent under the tiles, they constantly perch first on the roof of the chancel, and shift the mouse from their claws to their bill, that the feet may be at liberty to take hold of the plate on the wall, as they are rising under the eaves.”

The particular tame owl to which I have already referred, succumbed to the fate of most pets, and came to an ultimately end, but in a very singular manner.

When I first had the bird I kept it in a hamper for some days, but my heart smote me for confining the poor creature to such narrow limits. So I procured a very light chain about six feet long, put a ring round the owl's leg, and fastened one end of the chain to the ring and the other to the hamper. Next morning when I went to inspect my owl, I naturally expected to see it looking happy at its comparative liberty, and was rather surprised to see nothing of the bird at all. However, the chain was still there, and by following it up I found the owl at the other end hidden among a heap of coals, quite black externally, and what was much worse, with its leg cut quite to the bone by its constant tugging at the chain.

At much risk to my fingers I secured the bird, removed the ring from its leg, and, sewing a piece of soft leather round the uninjured leg, fastened the chain to the leather. But the injury was too severe even for a bird to get over, for the unfortunate owl had struggled with such pertinacity that the skin was separated quite round the leg, which had swollen

alarmingly, both above and below the injured part. I kept the bird for some time after the misfortune, but it never recovered its spirits, although I sent it to live in a large yard in company with some other owls. Its appetite failed, and one day it was found dead. On dissection it appeared that the bird had contrived to swallow a large stone, which was the proximate cause of its death.

It appears that, although the owls reject the fur and bones of the animals which they eat, yet their presence is necessary for right digestion, and if the bird is deprived of them its health fails. Dogs in the same manner, absolutely require bones.

I mentioned just now that I caught the owl with some danger to my fingers. It seems to be a propensity common to most of the sharp-clawed carnivora, whether quadrupeds or birds, to throw themselves on their backs when attacked without hope of escape, and to fight by striking with their claws in preference to using their teeth or beaks. Any one who has played with a kitten can remember how the little creature turns over, and grasps the hand with its forefeet, while it strikes at them with the claws of its hinder feet. The leopard rips up a sheep in exactly the same way; and the owl is very partial to this mode of combat, and is an enemy not to be despised. It kicks, and flaps, and screams, and snaps with such vigour and rapidity that the hand must be sharply moved to escape from either the beak or the claws, both of which can cut like a knife.

The force with which the owl can use its weapons may be imagined from the following anecdote, related by Mr. Crosse:—

“Some time since, one of my servants brought me an owl which he had captured. It was a fine vigorous bird. I placed it on a side table, where it sat with the solemnity of a judge; but a cat that happened to be in the room eyed his lordship with no sort of reverence, and watching her opportunity, when she



thought he was wrapped in his intensest day-dream, she sprang on the table, and seizing the breast of the dignified bird, was about to devour him; but, with surprising activity, he instantly liberated himself from the claws of his antagonist, and rising into the air a few feet, darted down rapidly on the back of the astonished cat, who ran round the room in an agony, with her assailant riding triumphantly upon her back, and pinching her severely with claws and beak."

In order to permit it to use these claws and beak on its prey with full effect, the owl is furnished with a pair of huge eyes, so that if the mouse were to put to the owl the question that Little Red Riding-Hood put to the wicked wolf, "Why have you such great eyes?" the answer and result would be precisely the same, "To see you the better, my dear," followed by practical proof. Round the eyes is a large radiating circle, or shallow funnel of feathers, respecting which structure all naturalists have the same opinion, which opinion, I humbly venture to suggest, is not correct.

It is said that the use of this circle is to collect the rays of light and throw them upon the eye, a provision necessary in dark nights. This principle is apparently carried out in the case of the barn owl, where the feathery circle being of a whitish hue may be supposed to act as a reflection of the light. But it must be remembered that in the brown owls this circle is also brown, and therefore would rather absorb than reflect the light. Besides, objects are seen by the light reflected from *them* to the eyes, while light reflected upon the eyes from the sky would rather distract than aid the vision. When, on a bright day, we put our hands to our eyes in order to view a distant object, we do so, not to collect scattered rays and to force them to converge upon the pupil, but rather to keep these scattered rays from interfering with those that proceed directly from the object of vision. The same thing may be

observed when people look at a picture through a tube.

In my own opinion the radiating feathery circle is very simple in its operation, being only a kind of circular splay window cut through the thick mass of plumage in which the head of the bird is enveloped, in order to give it a wider sphere of vision, just as architects cut a splay window in the thick wall of a fort so as to permit a musket barrel to be pointed in any direction. And the radiating formation of the feathers is preserved because the natural elasticity of their stems presses aside the softer downy plumage of the head, and preserves the circular form complete. If examined they will be found to be formed in a very peculiar manner, and quite distinct from those on which their extremities press.

In order to aid the sight, the hearing of the owls appears to be very acute, and the ears are largely developed.

The nest of the barn owl is generally easy enough to discover, although it is very seldom to be seen, as it is situated in some dark hole, where the sense of touch must be employed instead of that of sight. The eggs are three or four in number, and rest upon a mass of the disgorged pellets. They are quite white, of a peculiar chalky look and rough on the surface, so that at first sight they appear to have been carved out of chalk and to have been left unpolished. The hand alone can distinguish an owl's egg without the assistance of the eye.

These owls are rather prolific, for they have been observed to be engaged in feeding one brood of young at the same time that they are hatching another. They feed their young with the same food that they themselves eat, and in the service of their children are said to commit much depredation among the families of other birds. At least, so says White, even of the barn owl, and, curiously enough, with regard to the very species of bird which another naturalist

avers is never eaten by the owl, old or young. This bird is the pigeon, of which White says, that he has known a dove-house infested by a pair of white owls, and that they made great havoc among the young pigeons. One of the owls was shot, but the survivor soon found another mate, and the depredations were renewed until a final stop was put to their proceedings by the destruction of both birds.

Waterton, on the other hand, declares that the barn owl does *not* eat pigeons, and confirms his opinion by the events of his own pigeon-house.

“When farmers complain that the barn owl destroys the eggs of their pigeons, they lay the saddle on the wrong horse. They ought to put it on the rat. Formerly I could get very few young pigeons till the rats were excluded from the dovecote. Since that took place it has produced a great abundance every year, although the barn owls frequent it, and are encouraged all around it. The barn owl merely resorts to it for repose and concealment.

“If it were really an enemy to the dovecote, we should see the pigeons in commotion as soon as it begins its evening flight, but the pigeons heed it not, whereas if the sparrow-hawk or hobby should make its appearance the whole community would be up at once. . . . I am amply repaid for the pains I have taken to protect and encourage the barn owl; it pays me an hundredfold by the enormous quantity of mice which it destroys throughout the year.”

There is an apparent discrepancy between these accounts; but they may be reconciled by supposing that the owls mentioned by Mr. White were not successful in obtaining a sufficiency of the ordinary kind of food to supply the demands of their young families, whereas those who took up their abode in Mr. Waterton's dovecote found rats and mice ready at hand, and did not therefore risk a battle with the pigeons in defence of their young.

However that may be with the barn owl, the tawny owl certainly does eat birds, and as we shall soon see, does not confine himself to the young. The hardihood of the owl must be exceeding, for all birds, even the weakest, will fight desperately in defence of their offspring, urged by that mysterious *storgè* that, although so transient in the brute creation, is so powerful while it lasts. Under these circumstances the dove herself becomes a furious enemy, and, regardless of her own safety, launches herself boldly against an intruding hand. My fingers have suffered somewhat from the sharp beak of the little blue atom of a tomtit, as she sat in her tunnelled cell, watching over the safety of her tiny eggs. The peewit that would at another time keep high in the air, wheeling in great circles, displaying the black and white plumage, and uttering its most mournful cry, will, when its young are hatched, come and tumble along close by the feet of any one who approaches, while the little ones scamper away in another direction.

It may therefore be imagined that if birds, comparatively weak and defenceless, can fight so well in the good cause, the resistance of a bird like a magpie would be sufficiently formidable to deter even an owl from assaulting it. I should be very sorry to put my hand into a magpie's nest when the lady of the house is at home, at any time of the year; but when she is bringing up a family, I would almost as soon put my hand into a hornet's nest. I am sure that there would not be a square half-inch of uninjured skin left on my fingers. Madame Mag is at any time rather given to biting, and that with some force, but when she does so in defence of her young, she is gifted with tenfold power.

I suppose that the pertinacious courage which seems to have characterised the attacks of the owl upon the magpies, must have been inspired by

precisely the same impulse urging them on in the feeding of their young, that would have inspired them in their defence.

The anecdote is related by Mr. R. Carr, and is as follows:—

“In 1844 a pair of tawny owls reared and ushered into the world three hopeful young, after having fed them assiduously upon the trees for many weeks after they had left the nest. The food must often have consisted in great part of worms, snails, and slugs, for the old birds brought it every minute from the ground in the immediate vicinity of the trees where the young were perched. This, however, might only be considered as a whet to their appetites before dinner; for the parents made repeated and persevering attacks upon three or four magpies’ nests, sometimes during half-an-hour at a time. As the defence was gallant and spirited, they were often repulsed; but finally I found the remains of young magpies under the favourite perch of the young owls, and one morning the bloody head and feathers of an old magpie, conspicuous for its size and the want of any cerous skin about the beak. This, then, I thought, must have been taken when roosting.

“In 1845 the old owls alone were seen, and they passed the summer in sedate retirement, and seemed to rest from the labours of propagation; neither did they molest the magpies. But in 1846, they began to be very active early in the spring, and by the beginning of May again had their young owlets out upon the branches. Walking about nine o’clock one evening, I heard a pertinacious attack going on against a pair of magpies that had their nest in the top of a very tall sycamore. At last, instead of the frantic chattering of the poor magpies, one of them began to shriek in agony like a hare when caught in a noose; and it was evident that the owl was trying to drag it out—the mother bird—by the head from the entrance of the nest.

“I ran down in time to separate the combatants,

by striking against the stem of the tree with a stick. Before the next morning, the young of an only pair of rooks had disappeared from the nest, in a situation where nothing but the owls could have injured them. This was too bad; a decree went forth against the young owls, and they paid the penalty of their voracious appetites.

"It is thus evident that the magpie's instinct in arching over her nest is necessary to enable her and her mate to defend it against rapacious birds. Probably the raven, the buzzard, and the kite, may all be disposed to make unfriendly visits, wherever their race has not been extirpated by pitiless gamekeepers. But it is evident that the tawny owl is a formidable enemy. The reluctance of the rook to build out of society may also be better understood, as it cannot defend its open nest against the owl at night; and also one reason why the instinct of the daw leads it always to seek the shelter of a hole; although, as Mr. Waterton remarks, it appears to be as hardy a bird as the rook. That wisdom and beneficence which never err may have given them instincts for other and more important ends than human eyes may even be able to descry, but it is always gratifying when we think we can in part understand the utility and design of differences so striking."

I may mention, that in my own limited experience of owls and their habits, I have not known them to eat the young pigeons, although there was every opportunity for so doing, the nest of the owl being within a few yards of the pigeon-house, and within the same farm-yard.

Mr. Thompson bears similar evidence to that of Waterton. He says that the barn owl is a constant inhabitant of and visitor to the pigeon-houses, in the recesses of which it seems to find an appropriate resting-place for its twilight-loving young. There was one instance that strongly corroborates his views. In a pigeon-house in Belfast a pair of owls had

taken up their abode, and had at one time four young in the nest—rather a large family, and entailing much exertion on the part of the parents to supply their wants. Yet, although the pigeons and their young were within a foot or two on every side, not a single pigeon was destroyed by the owls.

Those who took the trouble to mount a ladder and make a close inspection of the large-headed family always found the shelf by their nest strewn with dead rats and mice, but they never saw a bird of any kind brought to the young owls. There were never less than six or seven rats and mice, and sometimes as many as fifteen have been counted. These, it must be remembered, were only the remains of the owls' meals, for these birds feed during the night. So we may fairly say that each young owl could eat at least two mice during the night, and that each old one found its appetite capable of accommodating three. That will give us a total of twenty-seven rats and mice killed by the indefatigable pair during each night.

I very much regret that some years ago the owl was the subject of many systematic cruelties and indignities, probably on account of its solemn countenance, a peculiarity of feature which always seems to excite mirth and contumely in the minds—if minds they may be called—of the vulgar.

Sydney Smith touches most happily on the miseries that occasionally befall solemnity in situations where a disreputable individual would escape ridicule entirely. "If," he says in his Essay on "Wit and Humour," "a tradesman of a corpulent and respectable appearance, with habiliments somewhat ostentatious, were to slide down gently into the mud and dedecorate a pea-green coat, I am afraid we should all have the barbarity to laugh. If his hat and wig, like treacherous servants, were to desert their falling master, it certainly would not diminish our propensity to laugh. But if he were to fall into a violent

passion, and abuse everybody about him, nobody could possibly resist the incongruity of a pea-green tradesman, very respectable, sitting in the mud, and threatening all the passers-by with the effects of his wrath."

Now, I am sure that we cannot point out any bird of so respectable an appearance as the owl, for, as if to add to the effect of his round, sleepy face and his nose-like bill, the radiating circles round his eyes give him the aspect of wearing spectacles—than which custom nothing can be more respectable. I have heard of "fast" undergraduates who, when quailing before the terrors of the examination, for which their three years of dissipation had hardly qualified them, dressed themselves decorously in black, and wore spectacles with plain glasses, in the vain hope of tricking the lynx-eyed examiner into an idea that they were steady-going, hard-reading men.

The poor owl, then, being respectable, pays the penalty of his respectability. There was formerly a sport, which I hope has now died away, but which I remember in full force in the north of England in my boyish days; this sport was termed Duck-hunting, and curiously enough, no one hunted a duck. But a wretched duck was procured, and a more wretched owl, and the latter bird being tied firmly on the back of the former, the duck was put into a pond. Of course, the owl, not being used to the water, became uneasy, and testified his disapprobation by pecking and kicking. The duck being equally uncomfortable, on account of the superincumbent weight, was terrified by the commotion on its back, and instinctively dived to get rid of its unwelcome load. Then, when the pair rose to the surface, the poor owl, with its draggled feathers, and dripping face, presented an appearance not unlike that of the pea-green tradesman, very, respectable, and was greeted with shouts of laughter and applause. The

noise and the cold-bath at first bewilder the owl, but he soon becomes angry, and commences a furious assault on the duck, who, by diving, cuts short the attack as before. And so the "sport" goes on, until the poor owl is either drowned or contrives to struggle from its bonds and to escape.

There was another cruel sport, which has now entirely fallen into disuse, that of throwing at cocks on Shrove Tuesday. This sport consisted in tying a cock to a stick, and throwing at the poor bird from a regulated distance certain short cudgels, something like those which the gipsies produce at fairs or race-courses for the purpose of aiming at tin boxes set on sticks. And so systematic were the players that they actually had in readiness pieces of stick to tie on the unfortunate bird's legs when they were broken by the cudgels, so as to enable it still to stand upright, for as long as the bird could stand it remained the property of the owner, who received a small sum for each throw.

There was a modification of this sport, which, although not very pleasant to the object of it, was not quite so cruel as that already mentioned. The bird was put into an earthen pot, in such a way that his head projected at one side and his tail at the other. This pot was then suspended some twelve or fourteen feet from the ground, and he who could break the vessel and deliver the inmate, received him for his skill. The cock, in this case, might escape scot free, or if he were hit death would be instantaneous. Once upon a time, some wags contrived to take out the living prize, and supplied its place with an owl. They then fixed to the jar the head and tail of a dead cock, and replaced it in its exalted situation, where, from its height, the deception was invisible. Candidates came forward, and, at last, a labouring man, after several trials, fairly hit the crock and broke it to pieces. But, instead of the expected prize, down

dropped a severed head and tail, together with a choice collection of potsherds, while a living owl exhibited his rotund countenance in the vacant spot, and then took to flight.

It is said that the man who was unfortunate enough to succeed in his aim, fared worse than the owl, for his companions and neighbours pursued him with as much banter respecting his discomfiture by the owl, as Mr. Oldbuck exhibited towards his nephew with respect to the memorable "*phoca*." The neighbours, however, did not possess the antiquary's forbearance, and so pestered the man that he could find no peace in the village, and was forced to migrate elsewhere.

When kites were more common in England they used to form objects of sport to the falconers, and to be regularly flown at by the hawks—thus contradicting the Scottish proverb, that "hawks do not pike out hawks e'en." Even in comparatively modern days this sport has been followed, and, curiously enough, the owl was brought into requisition. The reader must not imagine that the owl was used as the immediate means of taking the kite, nor that the bird was, like Shakspeare's eagle, by a mousing owl, hawked at and killed. The owl played a secondary, but important, part in the matter, and would be only too glad to get out of the way altogether. The object of the owl is to act as a kind of decoy to the kite, who comes to inspect the strange creature, and is then attacked by the falcons that are held in readiness until it makes its appearance. The falcon is generally the jer-falcon, on account of its size and strength.

It was thought necessary to tie the tail of a fox to one of the legs of the owl, partly for the purpose of retarding its flight, and partly to make it a more conspicuous object. The kite may well be surprised at the appearance of the object presented

to its gaze, and to the eyes of a kite, or indeed of any bird, the spectacle of an owl sailing through the air in broad daylight, with a fox-brush dependent from its feet, must be as bewildering a spectacle as the paper lantern appended to a paper kite's tail was to Sidrophel himself.

CHAPTER IX.

OWLS—*Continued.*

Capital Punishment.—Strong-minded Swallow.—The Brown Owl.—Its Ears.—American Mode of killing Owls.—'Οὔλος ὄνειρος.—Note of the Hoot.—Great American Owl.—Its Discomfiture.—Its uncanny Cry.—The Snowy Owl caught on board Ship.—Sailors' Pets.—The Owl and the Crows.—Real Size of Owl.—The Owl a Fisherman.—Hoot versus Screech.—Luminous Eye of Owl.—Davy Jones aloft.

THOSE who have the opportunity of visiting really rural districts, will frequently see the walls of barns covered with dead rats, mice, stoats, weasels, hawks and owls, which have been nailed there *in terrorem*, the rustics fondly imagining that the survivors will take warning, and keep out of the way. But hanging up a bird is just as successful a warning to its companions as is hanging up a man, that is to say, it conveys no sense of warning at all. And just as a class of human beings contrive to benefit themselves by means of these miserable culprits who have paid the penalty of their crimes with their life, so is it with birds. In White's "Selborne" is narrated a rather curious circumstance respecting the owl.

A dead owl had been hung to the rafter of a barn, and was seen by an economical and strong-minded swallow, who considered that the feathers of the owl were plentiful, soft, and warm, and would form a good place for her young to live in. So she built her nest between the wings of the dead owl, as the dried carcase hung from the beam. She laid her eggs in the nest, but succeeded no farther, as the owl, nest, and eggs were carried off as a curiosity

and placed in Sir Ashton Lever's museum. The person to whom this curious object was brought had a large conch shell fixed in the same place whence the owl had been taken. On the following season a pair of swallows, who were probably the very pair whose nest had been taken away, built in the shell. It was rather hard upon the swallows, for the second nest was also carried off, and deposited in the museum, together with its predecessor.

The brown owls are equally singular in aspect with their white relatives, but, owing to the darkness of their plumage, their external appearance is not quite so imposing. The common long-eared owl is nearly as amusing a bird as the white owl. It derives its name of long-eared from two tufts of feathers upon its head, which it can erect or depress at pleasure, and which, being placed nearly in the position which ears occupy in some of the quadrupeds, are commonly termed “ears.” They give a very cunning look to the bird, especially when, after lazily blinking and winking with his eyes only half open, and his head quite round, he suddenly opens both eyes to their fullest extent, and puts up both his ears.

All owls appear to have the habit of snapping their bills sharply when they are irritated or annoyed; just as rabbits stamp their feet, hawks scream, and cats spit. And candour obliges me to confess that owls, although externally meek and benevolent of aspect, are, like many of their biped but featherless fellow-creatures, very touchy and irritable, in spite of their looks.

The vertebræ of the owl's neck are very mobile, and permit the bird to turn its head through an entire semicircle, so that it can look directly to its rear without moving the remainder of its body. This property is probably given on account of the importance of silence and quiet while it watches the movements of its prey, whom the slightest noise

would alarm. And, as the owl is fully aware of its advantages of colour and form, it sits on stumps or branches where it completely harmonises with the lines and tints of surrounding objects.

While turning round its head in the manner which I have related, the feathers of the neck and breast are so similar in colour, and are so symmetrically arranged, that the bird appears to have been born into the world a monster, having its head turned the wrong way. No perceptible twist exists in the feathers, and not the least external sign that the head is not in its natural attitude. There is an American tradition that nothing is easier than to kill an owl sitting on a stump. All you have to do is to look him full in the face until his attention is quite fixed. You then walk slowly round the stump, and the owl's gaze continues to follow your movements, until, at the third or fourth circuit, his head falls off.

I was acquainted familiarly with a pair of these owls, but, as I have not seen them for some eight or nine years, their manners and customs have faded from my memory. They were generally accustomed to sit within some cask hoops that hung upon a nail in the wall, and when seated there, they coincided so well with the wall and the hoop, that a casual visitor would probably overlook them. Afterwards, a more respectable habitation was provided for their accommodation, consisting of a couple of perches and a roof. And the proprietor, being a classical scholar, prepared a label, with this remarkably felicitous inscription :—

ὈΥΛΟΣ ὈΝΕΙΡΟΣ.

Hom. Il. B. 6.

It is a perfectly untranslatable piece of wit, and I will not blunt its point by attempting any explana-

tion. Homeric readers, however, will fully appreciate it, especially if they have ever seen an owl blinking and dozing in the light of day. I know that it spoiled my dissections that morning, for I could not resist a laugh whenever the idea crossed my mind, and it is ruination to laugh while dissecting a wasp or a bluebottle.

White instituted some experiments as to the note used by the owls in hooting. One of his friends tried their note with a pitch-pipe, and found it to be almost invariably B flat, only one choosing another note, which was nearly, but not quite, A flat. Another observer remarked the notes of the owls to vary through G flat, B flat, and A flat. Two owls were heard hooting and answering each other, one taking A flat for its note, and the other B flat.

Our British owls, that is to say, the really British owls, are not of any very great size, but some of the foreign species are very large birds, and can attack animals of some size. There is one large species, common in many parts of America, that absolutely attacks and kills, not only the poultry in the farm-yard, but even the powerful and wary wild turkey. Audubon gives some admirable sketches of the character of this bird, one of which I here present to the reader. "It is during the placid serenity of a beautiful night, when the current of the waters moves silently along, reflecting from its smooth surface the silver radiance of the moon, and when all else of animated nature seems sunk in repose, that the great horned owl, one of the Nimrods of the feathered tribes of our forests, may be seen sailing silently and yet rapidly on, intent on the destruction of the object destined to form his food.

"The lone steersman of the descending boat observes the nocturnal hunter, gliding on extended pinions across the river, sailing over one hill and then another, or suddenly sweeping downwards, and again rising in the air, like a moving shadow, now

distinctly seen, and again mingling with the sombre shades of the surrounding woods, fading into obscurity.

"The bird has now floated to some distance, and is opposite the newly-cleared patch of ground, the result of a squatter's first attempt at cultivation in a place lately shaded by the trees of the forest. The moon shines brightly on his hut, his light fence, the newly-planted orchard, and a tree, which, spared by the axe, serves as a roosting-place for the scanty stock of poultry which the new-comer has procured from some liberal neighbour. Amongst them rests a turkey hen, covering her offspring with extended wings.

"The great owl, with eyes keen as those of any falcon, is now seen hovering above the place. He has already espied the quarry, and is sailing in wide circles, meditating his plan of attack. The turkey hen, which, at another time, might be sound asleep, is now, however, so intent upon the care of her young brood, that she rises on her legs, and purrs so loudly, as she opens her wings, and spreads her tail, that she rouses her neighbours, the hens, together with their protector. The cacklings which they at first emit, soon become a general clamour.

"The squatter hears the uproar, and is on his feet in an instant, rifle in hand; the priming examined, he gently pushes open his half-closed door and peeps out cautiously, to ascertain the cause by which his repose has been disturbed. He observes the murderous owl just alighting on the dead branch of a tall tree, when, raising his never-failing rifle, he takes aim, touches the trigger, and the next instant sees the foe falling dead to the ground. The bird is unworthy of his further attention, and is left a prey to some prowling opossum or other carnivorous quadruped. In this manner falls many a horned owl on our frontier where the species abounds." I confess that I rather pity the owl than otherwise.

Supposing, however, that he is fortunate enough to wing his flight in a direction where there is no squatter armed with a rifle, he comes at last upon a flock of wild turkeys, roosting, according to their custom, in the branches of a tree. Now is his time for a dinner, and his mode of securing it is to wheel in the air until he is behind the destined victim and well above him. Then down he comes, with one fell swoop, and the turkey becomes owl by the process of digestion.

Sometimes the owl is not so fortunate, and meets his match even in the unarmed turkey, who conquers by non-resistance, just as a pillow stops the sword more effectually than a breastplate, and as the owl has not the dexterity of Saladin, he cannot pierce through the cushion, that is to say, the feathery surface of the turkey. For when the owl has selected his victim, and makes his stoop, the turkey suddenly ducks down its head, and spreads its tail over its back. The consequence is, that the owl, instead of meeting with the expected resistance, is received upon a hard and somewhat slippery inclined plane, composed of the tail-feathers of the turkey. Along this dorsal or caudal shield he glides harmlessly, and shoots off the turkey like water from a duck's back. Down drops the turkey on the instant, and before the owl can recover himself, is concealed among the brushwood, without suffering any harm except perhaps the loss of a feather or two.

None of the owls have pleasant voices, some scream, some hoot, and all, I believe, hiss and snore, but this great horned owl is perhaps the most disagreeable vocalist of the whole family. Its notes appear to be almost supernatural, and, as Wilson remarks, his cry of "Waugh O! Waugh O!" is enough to startle a whole garrison. And as if to show how correct he was in his idea, a whole garrison, or, at all events, a whole body of soldiers, *was* startled by that very bird.

A party of the Scottish Highlanders had halted for the night in one of the North American forests, and being in want of some dry wood for their fire, had used for that purpose part of a small edifice that was situated close to the spot where they were resting. Now this edifice was the tomb of an Indian, who had been buried there. At dead of night there came horrible screams from the airy regions about, accompanied with guttural sounds, like those of a person half strangled and crying out for help. The Highlanders at once concluded that the sounds were produced by the ghost of the departed Indian, who was thus revenging himself for the desecration of his grave. And they consequently passed a night of extreme agony of mind.

Probably from the cry of the bird, one of its native Indian names is O-to-wuck-o-ho. But in another part of America the aborigines give it a less harsh name, Ne-to-ky-o-me-sew. Owing to its singular aspect, the medicine men think much of its powers as a means of necromancy, and carry about with them a stuffed or dried skin, to which they give an appropriate wizard-like expression, by inserting false eyes.

There is one of the large owls that is now and then seen in England, the snowy or great white owl. This is so large a bird, that a peasant who saw one of the few that have favoured us with their presence, mistook it for a milestone, as it sat motionless at the side of a road. This individual had probably strayed from some of the northern parts of Europe, or been blown by the wind against its will. The expanse of wing of this bird is no less than four feet, and it is very often two feet or even more in length.

A bird of this size requires a corresponding amount of food, and accordingly the snowy owl makes prey of animals as large as hares and rabbits, to which it gives regular chase as they run, and

strikes at them with its feet. Grouse and ptarmigans also fall victims to its voracity.

Some years ago, several of these birds were caught on board a ship which was many miles from land. Some fifty or sixty owls were seen hovering about the vessel, and must have presented a beautiful appearance. They seemed very tired, and settled on the yards of the vessel like so many sparrows on a barn. And it is rather remarkable that even under these circumstances, their bird-like tempers did not desert them, and they quarrelled for places on the yard-arms, just as most birds make a practice of doing before they finally settle down to roost. It is a very curious habit, and almost universal among birds. In some cases it has a very pretty effect, as with the starlings, who will settle and rise again some twenty times before they are finally located in their respective situations. Rooks have the same habit, and are very clamorous in their proceedings. I suppose that it is a kind of exercise that disposes them to sound sleep.

These owls of which I have been speaking suffered the loss of four of their number, who were surprised by the sailors when asleep on the rigging, too thoroughly wearied to exert their usual watchfulness. These necessarily became great pets with the sailors, who I do believe would pet a rattlesnake if they got one on board, and probably teach it to drink grog. As to the owls, the sailors managed well enough as to the feeding part of the task, for when the owls would not eat they held their beaks open, and crammed the birds with meat by main force. At the end of ten days or so the owls found out that they would be happier if they reconciled themselves to their situation, and so took their meals voluntarily.

One of the American owls was made the means of inflicting vengeance on a flock of crows. The mode employed was cruel but peculiar, and the scene must have been rather comical withal.

The crows had done great damage to the crops, and being very clever birds knew better than to come within gun-shot distance of any suspected human being. But sharp as crows are, the intellect of man is still sharper, and quite discomfited them. A man had caught one of the large owls in a hollow tree, and knowing the propensity that the crows possess to mob and buffet any large bird that comes in their way, especially if it be a heron or an owl, he took his captive into the field, tied it to a post, and hid himself, gun in hand, behind a stack.

True to their corvine propensities, the crows came thronging from all quarters about the owl, and fell upon him unanimously. They were so heartily engaged in their work that the concealed gunner was enabled to fire more than one shot before they noticed him, so much were they blinded with their rage. But the fall of some of their number gave them warning, and they were just taking their departure when a parting shot brought down a crow merely winged. The successful marksman picked up the dead birds as well as the wounded one, which latter he was about to immolate, when a strange idea entered his head.

He took the owl, and by means of pegs and string fixed it to the earth on its back, leaving only its claws at liberty. To these claws he then held the crow, which was immediately enclosed in their gripe. The squalls which the poor crow emitted may be imagined but cannot be described. There was no necessity now for the man to hide himself, for all the crows collected from the circle whither they had dispersed themselves, and flew to the rescue; and as to the cries of the victim were added those of the would-be rescuers, the alarm spread far and wide, and every crow for miles round came, first to see what was the matter, and then to give their assistance.

The very sky seemed black with crows, and the air was filled with their screams. The author of all this disturbance stood quietly within a few yards, firing,

reloading, and firing again, until the ground was covered with dead and wounded. For so earnest were the crows, that all their fears of gunpowder were forgotten, and they literally piled themselves over the owl and its victim, quite regardless of the leaden showers that relentlessly poured upon them, and of the recurring reports of the gun, which at another time would have sent them scattering off in terror.

I really hardly know whether the owl or the victim rook was more the subject of compassion; but in my own opinion, the being most to be pitied is the man who could do such a deed.

Large as the owls appear to be, and really large as some of them are, their actual dimensions are not nearly so great as they seem to be. Their thick covering of soft, downy feathers, which lie loosely upon each other, and are often raised at a considerable angle to the skin, adds extremely to the size of the bird. The common barn owl, for example, appears to be at least as large as an ordinary domestic hen, but when skinned is found barely to equal a pigeon in actual size. Its strength is in proportion to its apparent, and not to its real size, but that effect is produced by the firm and compact structure of the muscular system, by which, as in the case of the feline tribe, considerable power is compressed into a small space.

An eagle, a lion, or a hawk, when deprived of its skin, and with all the beautiful structure of its muscles exhibited, always reminds me of a locomotive steam-engine, for neither object seems adequate to the work that it can achieve, and all of them perform their task with such seeming ease that the mind at first fails to see the real power that is required for the purpose. A lion can crush a dog into a flat shapeless mass by an unconcerned wave of his paw; an eagle can kill a swan with a single blow, and by the same effort drive it many yards out of its course through the air until it falls on some appropriate spot; and the falcon can

attack and kill the heron in spite of his beak. Then, the locomotive engine just moves a bar backwards and forwards with almost graceful ease and noiselessness, and by that gliding movement, which a finger could apparently check, a whole train of railway carriages is whirled along the iron road.

Unfitted as the feathers of the owls may appear to sustain immersion in water, there have been several instances of their catching fish by dashing upon the surface of the water and seizing the finny prey with their claws, although they did not immerse themselves so deeply as the osprey or other birds whose plumage is better adapted to that purpose.

The great white owl was seen by Audubon to pursue a systematic course of fishery, and to exhibit great skill in the mode of watching for, seizing, and carrying off its prey.

“At the break of day one morning, when I lay hidden in a pile of floated logs, at the Falls of the Ohio, waiting for a shot at some wild geese, I had an opportunity of seeing this owl secure fish in the following manner:—while watching for their prey on the borders of the ‘pots,’ they invariably lay flat on the rock, with the body placed lengthwise along the border of the hole, the head also laid down, but turned towards the water.

“One might have supposed the bird sound asleep, as it would remain in the same position until a good opportunity of securing a fish occurred, which I believe was never missed; for as the latter unwittingly rose to the surface near the edge, that instant the owl thrust out the foot next the water, and, with the quickness of lightning, seized it and drew it out. The owl then removed to the distance of a few yards, devoured its prey, and returned to the same hole; or, if it had not perceived any more fish, flew only a few yards over the many pots there, marked a likely one, and alighted at a little distance from it. It then squatted, moved slowly towards the edge, and lay as

before, watching for an opportunity. Whenever a fish of any size was hooked, as I may say, the owl struck the other foot also into it, and flew off with it to a considerable distance.

“In two instances of this kind I saw the bird carry its prey across the Western or Indiana Shute into the woods, as if to be quite out of harm’s way. I never heard it utter a single note on such occasions, even when two birds joined in the repast, which was frequently the case when the fish that had been caught was of a large size.

“At sunrise, or shortly after, the owls flew to the woods, and I did not see them until the next morning, when, after witnessing the same feats, I watched an opportunity, and killed both at one shot.”

There is rather a controversy about the sweet voices of owls, some saying that the barn owl hoots, and some that it is only capable of screaming. Putting aside the æsthetical view of the case, it is rather a curious subject, for there are a host of observers who declare that it does *not* hoot, and as far as I know, there is only one who advances the contrary opinion. But one proved affirmative is worth a host of negatives, which, however, cannot be proved; and a well-known naturalist declares that he not only heard a white owl hoot, but settled the matter by shooting it. There the matter appears to rest. In a musical point of view, there is not much to choose between the two sounds, and there seems to be about the same distinction between the hoot and the scream, as between the drone of a bagpipe and the upper notes thereof.

Perhaps there may be an object in the unmelodious note, which derives its efficacy from it, just as a railway whistle is purposely made to give forth so horrible a scream, that it cannot be mistaken for any other sound in nature or art. Mr. Mudie conceives that the object of the hoot, or scream, is to startle the little birds from their slumber, but as the barn owl

has not been proved to eat birds at all, this opinion is hardly tenable. The snoring sound referred to, is not produced by the owls in their sleep, as might seem to be the case, but although it is a tolerably fair imitation of similar sounds that issue from human throats, it is only the cry of the young birds, impatient for the coming of their parents with food.

The eyes of owls, like those of most nocturnal animals, even including the nocturnal insects, are made very large, and capable of collecting every ray of light. And that light is reflected from the interior of the eye in such a manner as to shine with a phosphorescent light. Every one has seen how the eyes of a cat, or even a dog, shine with a greenish light if they are placed in a partially-dark room, and it is the same with the owl, which is a kind of feathered cat. And those who have had an opportunity of seeing an owl at night will not be surprised at the terror exhibited by a certain sailor who was sent aloft at night, but descended hastily, exclaiming that he had seen "Davy Jones" aloft. Davy Jones turned out to be a great white owl, that had perched upon the yard through weariness. It would have had a curious effect, if the sailors of the ship, mentioned on page 153, had unexpectedly seen sixty Davy Joneses sitting aloft simultaneously.

I am unwilling to leave the owls, for I have rather a fancy for them, but we must now proceed to another class of birds.

CHAPTER X.

PARROTS.

Construction of Beak, and its Uses.—Representative Language.—Powers of Imitation.—Street Cries.—Polly a Practical Joker.—Polly Intoxicated.—Polly cross.—Col. Kelly's famous Parrot.—The Parrot who had seen the World.—Polly in the School-room.—Crisp Bits and Buttery Touches.—Why called Polly?—Vanity Fair.—Parrots at Sea.

I HAVE long regretted that my domestic menagerie has been destitute of a parrot, for the parrots, together with some of the Corvidæ, possess an amount of intellect, a power of imitation, and a strength of memory, which I should very much have liked to cultivate. Only there is one great danger in procuring a parrot, and that is, that the cause of morality is sometimes much injured by the very profane conversation of the bird. It is a great pity that our sailors hardly seem able to utter the shortest sentence, without decorating it according to their ideas, with a string of oaths and profane expressions. The sailors, finding that the parrots which they bring home are capable of imitation, carefully train them in their own peculiar language, and, indeed, some people appear to think that a parrot is worth nothing if it does not swear.

The construction of the bill, tongue, and other corresponding organs of the bird is very curious, as it is that construction, together with its implanted imitative instinct, which enables it to give utterance to articulate sounds. The resonance of human words is produced by the hollow construction of the beak,

and the thick and fleshy tongue gives its aid in the formation of the consonants.

The bill and the tongue, however, have other uses besides those of talking, which is quite an adventitious and exceptional accomplishment. The parrot tribe are all scansorial, or climbing, birds, and they seem to make much the same use of their bills that the spider monkeys make of their tails. Most persons have seen a parrot climbing about its cage, or its perch, and have noticed how the bird assists itself with the beak, both in ascending and descending. And for this purpose, the bill is formed in the shape of a hook, so that it may affix itself to a branch or a projecting surface without any definite effort on the part of the bird. In the skeleton of a parrot, the bill has a most singular appearance, for although the feathery covering of the parrot's head and neck prevents any apparent disproportion between the bill and the body, yet when the skeleton stands bare and bony before the eyes, the thin vertebral column forming the only junction between the head and the body, the bill appears to be almost absurdly disproportioned to the remainder of the body.

Yet, the size and power of the appropriate muscles exactly correspond to the size and power of the beak, and with reason, for the beak of the parrot is to the bird the analogue, though not the type, of the hand in man. With that singular beak the parrot can work wonders. It can easily crack a nut of some strength, and then, by adroit management of its tongue, pick out the kernel, permitting the fragments of shell to fall to the ground. It has been known to clear out the interior of a pea, and to reject the outer skin, soft though it be.

There was one very large parrot resident in the Rue des Capucins, in Paris, whose domicile I generally passed once or twice every day. I struck up quite a friendship for the bird, and was accustomed to save for it the stones of the peaches that are so

plentiful in that city. Polly always looked out for his peach-stone, which afforded him amusement for several hours, in much the same way that we entertain ourselves with eating walnuts. Peach-stones are very rough, and some quantity of the soft substance of the peach generally lurks in the interstices. To extract these remains was Polly's delight, and if I passed the place again, an hour or two afterwards, I generally saw him still engaged in rolling the peach-stone in his beak, and probing its hollows with his tongue. I used to give him all kinds of fruits, and similar substances, all of which he would eat, but he cared for nothing as long as he could get a peach-stone. I believe that his exertions to crack it constituted part of his amusement. He was accustomed to become very angry at each failure, for he never succeeded in breaking so solid a substance, although he could crack a nut with perfect ease.

A parrot delights in nibbling and pecking at objects, partially for the same reason that cats are given to scratching the legs of tables and chairs, and the effect produced upon the object is much the same. The beak is very peculiarly formed, and the upper mandible is capable of a rather extended upward movement, consequent on its anatomical construction. When, therefore, such an instrument as the beak is put into the power of so clever a bird as a parrot, singular results may be expected. And of all the curious achievements that have been done by a parrot's beak, the following is perhaps the most curious that I have yet known. The parrot in question is thus recorded by Mr. Smee:—

“The extent to which experience may be carried, to regulate the action of animals, is truly extraordinary. A short time ago, I lent a presentation copy of a book to a near relative, who kept a parrot. This book was left upon the table, and upon entering the room, I found Polly sitting upon the table, and I observed that she had torn the cover of my book to

pieces. I was at first inclined to be very angry, but on ringing the bell, the servants stated that they believed Poll had been shut up, and that she had opened the spring, as lately she had found out the way to let herself out whenever she pleased. We agreed that this process must be stopped, and therefore it was determined to place a padlock upon the cage, which opened by pressing upon the spring. The next day she was again found outside the cage, with the padlock at the bottom, although she had been duly fastened up. She was again put back in her cage, and the door padlocked, but she walked deliberately down, took hold of the padlock, opened it, and walked in triumph out of the cage, with the padlock in her beak. When I saw the proceeding, I was so delighted with the feat, that I thought it more than compensated for the injury done to my book."

I must take this opportunity of observing that I have very great difficulty in writing about the parrots, because, if I were to tell many anecdotes which I know to be true, no one would believe them, and I should suffer from reviews. So I have only selected a few anecdotes and those of comparatively mild character. Indeed, throughout all my works, I have been obliged to omit very many circumstances which had come under my personal notice, solely on account of popular incredulity.

For it is so difficult to make the popular world understand that all animals in whom is the breath of life, possess reason, and that from the same source as ourselves, although its quality is different. It is quite certain that many animals, such as dogs for example, learn much of our language, even exclusive of inflection and accent, although they cannot form corresponding sounds. The speech taking its rise from their reason, is a representative language of action, and those who are much in company with the inferior animals, attain the power of understanding their language in no small degree.

My own dog, for example, could tell me that he was hungry or thirsty, that he was happy or the reverse; if he had done wrong he could express penitence, and ask forgiveness, and more than that, could show his knowledge that he was forgiven. He could let me know his desire to take a walk, and when in the open air, would not chase anything without asking my leave. Thus I could understand his language, while it is evident that he could understand mine, because he would do what he was ordered, even when the words were very similar. If, for example, I told him to fetch the cat, or to fetch the slippers, or to shut the door, he never mistook one command for another, and if I happened to mention casually that he must stay at home to-day, he immediately looked sorrowful. No one can look *into* a dog's eye, without feeling that there is a community of thought between himself and the animal.

Although I have never yet been able to call any parrot my own, I have formed acquaintances with many gentlemen and ladies of that nation. One very amusing bird had its residence exactly opposite my window at Ramsgate, while I was there for a few weeks one summer.

The parrot's cage was placed in a kind of balcony overlooking the harbour, and in consequence, there were plentiful opportunities for imitating sounds. I had been there for some time before I discovered that a bird was the origin of the various nautical and piscatorial phrases and sounds that were heard just outside the window, so exactly had it caught their tones. Polly was especially fond of imitating the fishermen, who came through the streets selling prawns. Their rough, hoarse cry of "Prawns! Fine prawns! Fine prawns!" she exactly mimicked, even to their pronunciation of the object of sale, which they always call "prarns."

I find, by the way, that most itinerant dealers seem to affect an indistinctness of pronuncia-

tion in their cries, while some rise into metaphor. Of the latter assertion there is a daily proof in the person of a costermonger who passes several times daily under my window, and sets up a cry of "Beautiful! Fine large brown 'uns!" by which he means that he sells shrimps. I did think that I had discovered one fish-dealer who spoke plainly, for he always cries "Smoking hot herrings!" but on looking out of the window, I found that he dealt in whitening. There is another order of cries, which I term the obscure, such as "Taploin," which I lately discovered to represent dust, and a very singular cry of "Ow . . . yup . . . nollikins," the signification of which is yet a mystery to me, although I have devoted some time to its solution, and have even watched the utterer through a telescope. Lastly comes the concise order, who concentrate a vast amount of meaning into a monosyllable, just as a Bramah press squeezes a truss of hay into a quart pot. Of this order, two examples will suffice. One of these gentlemen comes under my window, and gives vent to a single startling shriek, "Yah!" while the other is equally forcible in the monosyllable "Zah!" Now Yah comprises the information that knives and scissors may be ground at twopence per blade, and Zah signifies that cat's-meat can be bought for a halfpenny per slice—skewer included.

To return to the Ramsgate parrot. She has the power of imitating the working of a windlass, and hits exactly the metallic tone of the catch falling between the cogs as the winch is turned. I could hardly believe that the bird was capable of producing the sounds, until I watched her carefully. Just opposite her cage is a tall flagstaff, on which is hoisted daily one of those brilliant flags in which Ramsgate rejoices during the season, and which give it so cheerful an appearance. The sheave, or pulley of the block through which the halyards pass had become very rusty, and used to emit grievous creakings,

something like the sounds that are produced by the breaks of a railway carriage. Polly was quite an adept at creaking in precisely the same tone as the rusty sheave, and she always delivered the sounds at just the intervals that were caused by the alternate change of hands as the man below hauled up the flag.

Polly however found her principal forte to lie in squeaking and creaking, and cultivated her natural talents with singular success. There were three different kinds of creaks that occurred daily, one produced by the rusty sheave as before stated, another by the wheel of an old wheelbarrow that was much in use in that locality, and the third emanated from the axle of a fish truck that passed by the cage three or four times daily. And Polly exhibited such nice discrimination of character, that she never confused the three. The wheelbarrow was painfully true.

Then she had also learned how to imitate the sound of a saw passing through wood, but of that accomplishment she was rather chary. She could also blow off steam quite in the manner of the various steamboats that thronged the harbour, and occasionally indulged her neighbours with a reproduction of the alarm whistle. The usual amount of parrot phraseology was at her command, such as "Pretty Poll," &c., and she was much given to calling for some imaginary Eliza, but it is not worth while to note accomplishments that seem to be attained naturally by all parrots. Perhaps her best point was to enact a dog whose foot had been run over by a cart wheel. It is the more extraordinary, because she was not likely to have heard the sound more than once or twice at the utmost, and yet the imitation was perfect. There was no mistaking the peculiar misfortune that had befallen the dog. First there came a loud shriek, then a long howling, such as is usually termed "pen and ink," and then the wounded brute seemed to subside into a series

of yelps, and to vanish somewhere round the corner. It was an astonishing performance, and very rarely vouchsafed.

Parrots seem to have a perfect appreciation of practical jokes, of which propensity I have seen many instances, and heard of more, which I refrain from narrating for the reasons already given. Here I must insert another parrot anecdote from Mr. Smee's work on Instinct and Reason, as it shows this peculiarity.

"A parrot caught the note of a chaffinch so accurately that it was impossible to tell the one from the other. In summer-time Polly used to be indulged by being placed in a tree, where she took much delight in climbing about the branches. At these times she would frequently repeat the chaffinch's note, when the birds would come from all quarters and settle upon the tree. It was then highly amusing to hear the parrot and chaffinches mutually call each other.

"After a time, however, Polly, in the exuberance of delight at the sight of so many winged creatures around her, would suddenly call out 'Pretty Poll!' when the chaffinches, startled at so human a sound, as much as Robinson Crusoe in his uninhabited island, instantly took flight, and made their escape from so terrible a sound as rapidly as possible, when Polly looked woefully astonished to find that all her visitors had so suddenly deserted her."

From my acquaintance with the character of parrots, I rather fancy that Polly quite intended to frighten her visitors, and that she called them for the express purpose of scattering them again.

There is a grey parrot whom I very often see, and who whistles, and sings capitally. Only, if he sees that he is watched, he abruptly ceases, and tries to look as if he had been quite silent. His chief amusement is to sit in the window behind some green shrubs, and to startle passengers, especially

ladies, by uttering a tremendous scream close to their ears. He imitates a canary, whose cage hangs near his window, and has managed to catch the song of the little bird very well. Only he has a habit of spoiling the effect of the music by breaking off and laughing in the middle of his song.

However he does not seem to be a bird of very considerable genius, for during some twenty years of acquaintance with him, I have not known him add to his accomplishments anything except the canary song above mentioned. But there are other birds who really display some reflective powers in their practical jokes.

For example, a soldier was entering a courtyard of a gentleman's house, when a hoarse rough voice uttered in a commanding tone the word "Attention!" or rather its abbreviation "'Shun!" With the instinct of discipline the man sprang into position, according to regular routine—palms of hands to front, little fingers feeling for the seams of the trousers, chest out, chin well drawn in, heels drawn together with a "tell," body leaning on the fore part of the feet, &c. Immediately, the same voice bawled out, "You're a fool, sir!" and on turning round in great wrath, the soldier found that his commander was only a bird after all. By the way, it is very amusing to read the Hindostanee translations of British words of command, which are used in drilling the Sepoys. Among the specimens, we have "Shoulder arms!" contracted into "Sholdrams," while "Attention" is abbreviated into "Telchun."

Then there is, or was, another parrot, who had been placed at an open window, while some painters were engaged upon a row of posts that crossed the pathway. They were constantly calling out "wet paint!" to the pedestrians, and the parrot, seeing that people were inconvenienced by the wet paint, learned the phrase forthwith. And from that time one of his chief pleasures was to call out "wet

paint," and to see the passers-by start and thread their way cautiously between the posts.

Each parrot seems to have a decidedly individualized mind, although there is a great family likeness running through them, and each therefore chooses his own peculiar mode of playing precisely the same trick. One of these birds, of whom, unfortunately, nothing remains now except the memory of his deeds, and his stuffed skin eternally sitting under a glass case, was exceedingly fond of amusing himself at the expense of strangers. His habit was to wait until some one was near his cage, and then to begin talking at a great rate. Of course, the passenger stopped, and began to talk to the parrot. Polly then immediately became quite silent, and would not speak a word. After trying to join in conversation for some little time, the passenger gave up the attempt and walked away. Directly his back was turned, the parrot testified his amusement by a loud laugh. Sometimes his dupe would be attracted by the laugh, and come back, when the whole scene was enacted afresh.

He was a very remarkable bird altogether, and I have collected one or two facts of his life, which I here present to the reader.

Liberty was now and then accorded him, and the first personage whom he sought on leaving his cage was the cat. His mode of addressing her was by biting her ears or her tail, a method of salutation very agreeable to himself, but not particularly so to a cat, whose most delicate members are her ears and tail. But he was best pleased to find the cat asleep, because he then had an opportunity of alarming her. This he used to accomplish by stealing up very quietly to the spot where she was lying, and then screaming in her ear, "Who are you?" This never failed to startle the cat, and, of course, was very gratifying to the parrot.

Once, some little boys came to pay a visit, and were admitted into the room where the parrot was

placed. Boy-like, they began to romp, and to make no small noise. Now Polly had an objection to any noise that he himself did not make, and, accordingly, was heard to scream out, "Sarah, here 's a row!" and on another occasion of a similar nature, he ejaculated "Hullabaloo!" with great decision.

I very much regret to state that he was given to profane swearing, and the ladies of the family tried to break him of his bad habits, but not knowing how to manage parrots under those circumstances, did not succeed. One of them took him to task severely on the subject, and remonstrated with him, asking who taught him. And to her amazement, the answer was "You did."

Swearing and drunkenness generally seem to be companions, and it was so in this case. For Polly was very fond of beer, and sometimes an evil-disposed person would indulge him in this bad propensity, and give him some beer in a teacup. He held the cup in one of his claws, and so managed to drink the contents. The cup was decorated with representations of flowers, and, in a short time, the parrot became rather hazy in his intellect, and, taking the flowers for realities, would endeavour to peck them out of the cup. Then the cup would fall from his grasp, one foot slipped from the perch, soon followed by the other, and poor Polly was fitted for the station-house, and a fine of five shillings. He was a very discriminating bird, by the way, and, utterly rejecting all beer that was brought from the public-house, would touch none except home-brewed.

He could not endure neglect, or even its semblance, and courted constant notice, even though he would take no notice of the person who spoke to him. His cage was often hung on the branches of a tree in the garden, and there he used to sit, and wait to be noticed. If no one came, he began to pity himself in plaintive tones, uttering the words "Poor, poor Polly!" in every imaginable cadence of

sorrow. His imitations of human sounds, such as coughing or sneezing, were perfect.

He was much attached to his mistress, and if she were not present at the breakfast table, he always noticed her absence, and used to ask for her.

One of the ladies of the house was one of those individuals that go by the term of "a little teaze," and she used to carry out the principle towards the parrot, who hated her cordially in return. For some unexplained reason, nothing made him more angry than calling him an Irishman, and, in consequence, the word Irishman was sure to occur very often in conversation. Sometimes she was accustomed to play the parrot a trick, by winding a handkerchief round her finger, and putting it through the bars of the cage. Polly immediately made a dive at the handkerchief, from which the finger was rapidly withdrawn, so that the parrot only had the satisfaction of biting an empty handkerchief. This never failed to incense him beyond all bounds; he beat his wings against the bars of his cage, and screamed like a fury, while his eyes seemed on fire with excitement. I believe, though, that he had his revenge more than once.

It was not very easy to feed him, because he was accustomed to look out for feeding time as a good opportunity for a practical joke. The seed pan was duly filled and put into the cage, but before it could be secured in its place, the wilful bird would dab at it with his beak, knock it over, and cry out, "Won't have it, turn it out!"

I have often heard of a most peculiar parrot, but have never yet seen it. This remarkable bird has found himself so much at a loss for occupation, that he has devoted his time to pulling out his own feathers, and by patience and perseverance has plucked himself quite clean with the exception of his head, and so much of his neck as is out of the reach of his bill. Those who have seen him,

describe him as the most ludicrous object that the mind can conceive. One may imagine a wretched fowl to walk after being plucked, and that bird would be sufficiently absurd. But the idea of a parrot with a perfectly naked body, and a well-feathered head and neck, is almost too much for the conception. The only analogue that I can imagine, is the Hottentot who was seen marching in great state, dressed in jack boots and a grenadier's cap.

The parrot was a bird known to the ancients, for there are many references to the bird. But it was exceedingly rare both in Greece and Rome, and almost fabulous sums were paid for a single specimen. Yet it is hardly possible that more extravagant sums could have been demanded than have been actually refused in our own times. It seems almost impossible that any one would give an hundred guineas for a parrot. But that sum *was* given, and moreover, if the owner had chosen to consider it a mercantile transaction, it would have been one returning an interest such as the wildest companies would never dare to advertise. The name of the purchaser was Colonel Kelly, and several public showmen offered to pay him five hundred guineas annually merely for the hire of the bird. He never accepted any of the offers, as he was too fond of his bird to permit her to be carried about as a show, and he retained her for thirty years, at the expiration of which period she died. Mr. Brookes, the celebrated anatomist, dissected her throat and organs of speech, and it was found that long practice had considerably strengthened and enlarged the muscles of the larynx.

The bird could whistle and sing many tunes, beating time while it sang, and if it by chance mistook a note, it would revert to the erroneous passage, and repeat the melody. It was a very accomplished conversationist, being able to answer questions so appropriately that it seemed to rise above birds, and to

approach man. Its death occurred in 1802, and the bird was so public and celebrated a character that a paragraph in the *General Evening Post* announced its demise to the world, and recorded its virtues.

In India, tame parrots are very common, and, indeed, almost universal pets, for the natural character of the Hindoo is gentle and amiable, delighting in pets of all descriptions. Even the wild birds know that they have little to fear from the dark-skinned natives, and so it is a common spectacle to see numerous flocks of ducks, partridges, and peacocks, some wild, and some domesticated, but all so tame that it is not an easy matter to distinguish between them.

The parrots and grakles, or Mina-birds, are perhaps the greatest favourites, on account of their conversational powers, which are cultivated with great care. And in this point, as in many others, the poor benighted heathen, as we somewhat superciliously term them, afford us an excellent example, if we would only condescend to take advantage of it. I have already mentioned the notorious fact that nearly every English parrot who is celebrated for his talking powers, has been instructed in the art of swearing, and is anything but a moral or a decent bird. Now, the Hindoo thinks it below the dignity of himself as teacher, or of the parrot as pupil, to impart to it any language but that of a sacred character. He teaches the bird his creed, and to proclaim the praises and the glory of some of the myriad deities that are to be found in his mythology. And when the workman is at his daily task, he either listens to the pious ejaculations of the bird or beguiles the time by teaching it another series of religious phrases. I am so far a heathen myself, as to think that a Hindoo who blesses in the name of a false God, is a better Christian than any man who curses in the name of the true.

Parrots in general are very capricious, and object

to exhibit their accomplishments when they are most needed. I have made visits to several parrots, whose gift of speech had been strongly developed, but it generally happened that the bird was obstinately silent during the whole of my stay. There was one especial parrot, whom I was very anxious to hear talk, because it was so clever, but it always held its peace during my visits, and contented itself with screwing its head round knowingly, and almost winking at me, as if in derision. The peculiar gift of that parrot was its wonderful memory for names. When it saw a stranger, it never seemed to rest until it had learned his name, and ever after it appeared to connect the name with the individual. And it had profited so well by hearing its mistress ask her friends or acquaintances for their names, that it was accustomed often to take that task upon itself, and to call out to any strange child, "What's your name?" But, I believe, that it never did so towards a man or woman.

The parrots all appear to be very long-lived birds, eighty or ninety years being apparently an ordinary age. They generally die from the immediate effects of some accident or from ill-treatment, and it is very possible that in their own native country they may live much longer.

Parrots are generally very capricious in their attachment, and their love often partakes of the 'cupboard' character. As an example of this fact, I may mention a parrot that belonged to a relation of Buffon, the naturalist. This bird was very tame with some people, but his chief affections were set on the cook maid. He would follow her everywhere, and if out of her company for any length of time became uneasy and instituted a search after her. When he had found her, he would climb to her shoulders by clinging to her dress with his beak and claws, in parrot fashion, and was very lavish of his caresses.

Once, she injured her finger, which was a long time

in healing, and being very sore indeed, caused her to moan and scream with pain. During this time, the parrot used to pay her a visit every morning and to stay with her until night-time, and exhibited every mark of the most sincere attachment.

At last, the cook left the situation, and bade adieu to her friend the parrot, who, however, treated the separation quite philosophically, and transferred his attachment to her successor immediately on her arrival.

A very amusing story of an escaped parrot is told in Edwards's "Voyage up the River Amazon." The travellers had stopped their boatman near a spot from which issued an extraordinary noise of chattering and swearing, which suggested the idea that a band of parrots had caught some miserable owl and were mobbing it. So they took their guns, and crept quietly to the tree from which the turmoil proceeded, and on reaching it, they found that the fable of the monkey who had seen the world was being realised. For parrots are the monkeys of the feathered tribes.

On the topmost branch was seated a large green parrot, while on the neighbouring branches were perched a host of his companions, whom he was teaching to talk. His language was the Portuguese, and in that tongue he occasionally gave out a short sentence which was imitated by the crowd below. Then he began to dance and to roll his head and to laugh, all which gestures were repeated by his audience. Unfortunately, one of the school descried the human intruders, and, giving notice to his companions, they all flew away, accompanied by their instructor.

The ringed parrakeet is not an uncommon bird in this country and bears its enforced banishment from its native land with tolerable hardiness. One of these birds belonged to a pupil in my school, and was generally an inhabitant of the school-room. He was a very handsome bird, and very tame, and after

some instruction, he learned to keep silence during lesson time. At first, the sight of his playmates seated round him became very exciting, and he used to dance about in his cage to attract attention from them, and failing to obtain it, uttered loud shrieks of disappointment. But we soon broke him of that bad habit, for no sooner did he utter a screech, than we either put him into a dark closet, or covered his cage with a cloth, and he soon learned to command himself.

He was very fond of most fruits, but his great favourite was a walnut. His beak could not open wide enough to take an entire walnut at once so as to crack it, and therefore I used to split the nut and to give him half of it at a time. With that he was delighted, and showed his gratification by a short inward chuckle, which lasted until the nut was finished. One half walnut would last nearly three hours before he could pick out the entire contents. This he did in a very scientific manner. He held the nut tightly in one claw, and then, by means of the tip of his beak, he picked out small morsels, and conveyed them to his mouth by the tongue. He seemed to use his beak in much the same manner as a miner uses a pickaxe, namely, by driving the point of it into the substance of the nut, and then prizing out a morsel on the lever principle. If I wished to be very kind indeed, or to reward the bird for good conduct, I was accustomed to remove the shell, and present him with the kernel already extracted. This caused him singular gratification, and he used to dance with delight, and pour out quite a stream of chuckling, as he held the nut on the point of his sharp beak.

Poor Polly! he met with a sad fate. The school was situated in a rural village of the most primitive description, where there was *a* shop, and even the word "squire" was never heard. Polly thought that his cage was a restriction, and so he got out of it one

day, and flew into a tree. There he was espied by a neighbouring farmer, who positively shot him, for what reason could never be definitely ascertained.

I have already mentioned that several species of parrot were known to the ancients. Aristotle for example, speaks of the bird *ψιττάκη*, the Indian anthropoglot as he calls it—that last word meaning that the bird spoke with a human voice. The word psittace, which is the Anglicised rendering of the Greek word given above, seems to have undergone various mutations. Among the Romans, it became “psittacus,” as is seen in various poets, especially Martial and Ovid. Arrian calls it *σίττακος* (*sittacos*), and Clesias gives it the name of *βίττακος* (*bittacos*). Why we call it a Poll-parrot, or, according to some pronunciations, Paul-parrot, I never could understand.

Lately I was told of a parrot, who took a great fancy to a baby that made its appearance in the family. To this child it was accustomed to talk, and in fact seemed to consider itself a proper instructor for the little one. The baby died, and from that time the parrot was silent. The account was given to me by a person who was acquainted with the bird.

Every one knows the story of the parrot, who was silent until asked the reason, and then replied that he “thought the more.” Many responses from parrots are so apt as to induce the same idea as that which entered the mind of the interrogator, namely, that the parrot understood human speech. I know of many instances, but will content myself with one. There was a certain family, in which lived a parrot. Now the abode of the parrot was in the nursery, and there he was quite in his element. He was accustomed to hold conversation with himself and an imaginary interlocutor, a kind of psittacine Mrs. Harris. And when addressed by a human speaker, his answers were generally so apt,

as to startle them a little. Various reports were brought to his mistress of his accomplishments, and she determined to put some questions to the bird.

In pursuance of this determination, she went to the nursery, and not seeing one of the maids there, went to the cage and said,—“Polly, where is Wilson?” The parrot instantly responded “Down stairs,” which answer astonished the lady so much that she went down stairs too, and did not ask another question.

I do not think that she ever quite believed that the bird was not something more than it seemed.

The fact that parrots delight in practical jokes has already been mentioned, and there are also instances where advantage has been taken of the natural talents of the bird, to carry out a joke on the part of its master. One of these jokes is related by Mr. Simpson, in the once celebrated work “Paris after Waterloo.” It appears that a certain connoisseur in painting was rather pedantic in his phraseology, after the general habits of connoisseurs. Among his favourite terms were two phrases, which he was accustomed to produce whenever the colour had run into knots. These spots he was accustomed to designate as “crisp bits,” and “buttery touches.” Now his christian name was David.

He had a friend, who was no pretender, but an artist of eminence, and who determined to cure him of his absurd habit. This task he accomplished through the medium of his parrot, whom he taught to repeat the obnoxious words, whenever his hand was placed upon the toast rack and butter. When the bird had quite learned his lesson, the pedantic individual received an invitation to breakfast. Polly was present as usual and looked on composedly. Presently the guest stretched out his arm towards the toast rack, and its accompaniment, the butter plate. No sooner had his fingers been laid on them, than the parrot screamed out, “Crisp bits, Davie, buttery touches!”

Just as these pages were going to press, I was favoured by a lady with the following account of her parrot:—

“When a child, I had a fine grey parrot, called ‘Ben.’ He was a funny, good-natured fellow, with a dash of vanity in his composition, which manifested itself in a love of dress. You could not please him more than by attiring him in a doll’s hat and cloak, and when so arrayed, he would strut about the room in the most dignified manner, evidently admiring his exceedingly comical appearance.

“He would also enter thoroughly into the fun of the game of make-believe, for, if told to go to sleep, he would instantly shut his eyes and appear perfectly unconscious, even when called by name. But if we maintained an unusual degree of silence, he would slyly peep about, to see if he were being observed, and if he found us watching him, he would again close his eyes, and become oblivious. But if he saw that we were engaged, he would turn his attention to botanical researches among the flowers, or some other equally destructive occupation.

“The same bird would also simulate death when ordered, and would permit himself to be pulled about by the feathers as he lay on the floor, without any signs of life. But he would not permit a stranger’s hand to approach him; and being aware of the presence of the strange fingers by some internal instinct, greeted them with a sharp snap. And so fond was he of the hat and cloak aforesaid, that when the doll was dressed in her own property, he was accustomed to untie the strings with his beak, and rob poor dolly.”

I conclude the account of the parrots with a humorous description of the difficulties incidental on bringing home a cargo of these birds. The narrator is that same Mr. Edwards to whom reference has been made on page 174.

“Thus far, our parrots had been left pretty much

to their own discretion, and the necessity for an immediate setting up of family government was hardly more urgent.

“The macaw, nowise contented with his elevation, had climbed down, and was perpetually quarrelling with a pair of green parrots, and all the time so hoarsely screaming, that we were tempted to twist his neck. The parrots had to have a pitched battle over every ear of corn, and they and the macaw had repeatedly flown into the water, where they but narrowly escaped a grave.

“There were two green paroquets, and one odd one, prettiest of all, with a yellow top, and they could not agree any better than their elders. Yellow-top prided himself on his strength, and considered himself as good as a dozen green ones; while they resented his impudence, and scolded away in ear-piercing tones, that made the cabin an inferno. At other times, they all three banded together, and trotting about deck, insulted the parrots with their impertinences.

“When a flock of their relatives passed over, the whole family set up a scream that might have been heard by all the birds within a league; and if a duck flew by, which was very often, our geese would call in tones like a trumpet, and the guan would shrilly whistle. When we came on shore, we were obliged to shut up our *protégés* in the tolda, or they were sure to scramble up the nearest limb, or fly into the water and swim for the bank. Really it would have troubled a Job, but we could see no relief.”

However, by management, some relief was found, and the “family government” was commenced as follows:—“A rope was crossed a few times in the tolda. Upon this, the avava and the parrots were placed, with the understanding that they might look out at the door as much as they pleased, and be invited thence at regular hours to their meals, but that further liberties were inadmissible and unattain-

able ; so there they sat, scarcely knowing whether to laugh or to cry.

“The paroquets were stationed at the after part of the cabin, and the change which had come over one of the green ones from Barra, was amusing. She had been the wildest and crossest little body on board, always resenting favours, and biting kindly hands. But since the lately-received young ones had been put with her, she had assumed all the watchfulness of a mother, feeding them, taking hold of their bills, and shaking them up to promote digestion, and generally keeping them in decent order. She had no more time to gad about the deck, but, soberly inclined, with the feathers of her head erect and matronly, she stuck to her corner, and minded her own business. Meanwhile Yellow-top looked on with the calm dignity of a gentleman of family.”

CHAPTER XI.

MAGPIES.

Beauty of Plumage.—Juvenile Magpie.—Mag of the Seven Dials.—Mag and the Dressing-case.—The Magpie's Treasury.—A Happy Family.—Feud between Mag and the Hawk.—A Magpie's Revenge.—The Bellhanger and the Magpie.—The hidden Halfpenny.—A cool Promenade.—Objection to clean Floors.—Dissection of Cushion.—Hawk in the Stocks.—Mag at Drill.—What's o'clock?—Imitation of Pigeons.—Predilection for Cheese and Milk.—Hawk in the Stocks.

I PREFER to take the Corvidæ, or Crow family, next to the parrots, because many of them are accomplished talkers. And, as the commonest example of the conversational faculty is found in the magpies, they shall have the advantage of position.

There is not a more singular bird in existence than the magpie, and I know hardly any bird that so well repays the trouble of examination. For it is a bird of large character, so to speak, and combines in itself the accomplishments, both mental and external, of many birds. It is in fact a neatly-bound compendium of some half-dozen birds.

Few birds, whether foreign or British, can surpass the magpie in the exquisite beauty of its plumage. This may seem a bold assertion to make respecting a bird whose feathers are only black and white. But I must remark that the feathers are *not* black, and indeed I doubt whether the magpie wears one single black feather about him. We must not judge of the plumage of the magpie by those miserable, dingy, bedraggled specimens that are generally seen cooped up in cages, whose only exercise is that of hopping off their perch to the floor and back again; and

whose instincts are confined to eating the food that is placed in the cage.

Take a gentleman, radiant in evening dress, put him into a narrow cell, feed him with one kind of food for a year, give him no opportunity of washing or of changing his clothes, and at the end of the year tell a friend that you have a capital specimen of a fashionable gentleman at home; then take your friend to the window of the cell, and let him inspect the fashionable gentleman through the bars. Suppose that friend to be Prince Le Boo, or other transmarine celebrity, and that the only opportunity of seeing the fashions is that which you have afforded him. Then his idea of a fashionable gentleman would be analogous to the idea that many people entertain of a magpie.

I never pass the cage of one of those most dolorous magpies without an earnest wish to let him out by mistake, or, as the next best blessing that could be given him, to wring his neck. Can it be believed? I have actually seen a magpie living in a cage that was hung close to some stables, and the bird never even neighed like a horse, barked like a dog, or swore like an ostler; all because of the cage.

But let a magpie have free exercise, fresh air, and, if possible, good grass, and then show me a handsomer bird if you can. For, although at a distance many of his feathers appear black, it is only from the very richness of their colouring, which absorbs the light and retains it, except at certain angles. The dark feathers are of the deepest green, alternated, or as the ladies call it, "shot" with equally deep purple, so that either predominates according to the position of the light. These, contrasting with the pure white spots, and shown to such perfection by the elegant shape, and exquisite contour of the plumage, make an ensemble that in my eyes is surpassed by no bird in existence, although the colours of many birds are more immediately striking to the eye.

Then, putting aside the outer form, where shall we find birds of greater mental development than the magpie, whose fertile brain supplies such cunning that the bird often matches itself against its owner, and comes off victorious. Let me give a few instances before we proceed to more scientific points.

I have the pleasure of an acquaintance—a distant one certainly, on account of the bird's hauteur—with a magpie belonging to one of my friends. I regret to say that he declines my advances, and usually keeps out of the way when I speak to him. I suppose that he has an indistinct idea that he is going to be put into a book, and thinking that

“ A chiel's amang us taking notes,
And faith he 'll prent it,”

avoids a nearer acquaintance, as being conscious that his biography is not very creditable.

He is a very quaint bird indeed, especially just now, as he has no tail, his body ending in a point, much to the detriment of his equilibrium. I believe that the loss of his tail was a hard trial for him, and hurt his feelings of self-respect. Indeed his deportment under his present loss reminds us of a very particular elderly gentleman, whose coat tails have been suddenly twitched off and swallowed by an elephant for the sake of the oranges in the pocket.

His first introduction to the family partook of the general oddity of his character. I must premise that his ostensible proprietor is master of a school. “Sir, sir,” said one of the boys, “do come and look here.” Whereupon he was conducted into the kitchen, where on a table lay, or sat, or sprawled a round, pudgy lump, which, on his approach, set up a hideous squall, and opened its mouth to such an extent that the greater part of its interior anatomy was visible. The sight of the wide red abyss, together with the squall, rather discomposed the spectator, who retreated to a distance in order to inspect

the curiosity in safety. This was the magpie in its state of juvenile innocence. But alas! its innocence departed with its childhood.

Mag grew fast, and became a great favourite with everybody, master, boys, and servants. Of course each and every one was angry with the creature when it hid their knives or pens, or tore their papers, or played such like tricks; only as no one sympathised with the injured party the magpie was permitted to continue his pursuits.

But, indeed, what can one do with a magpie? If it were a dog it could be flogged, if it were a cat it could be kicked, but as it is a bird, who gets out of the way when it has done wrong, and laughs at the aggrieved party into the bargain, there is nothing for it but to kill, to banish, or to forgive it. And the last is generally the magpie's portion, for it affords great amusement to laugh at somebody else who has been irritated by the mischievous creature.

I have always great misgivings about a magpie. I am not exactly superstitious; but yet magpies and ravens *are* very fit companions to a witch. There is something positively appalling in the extremely knowing glance with which a magpie screws its glittering eyes round in their socket. Not long ago I saw a magpie seated on a heap of coals in a back lane near Seven Dials. It was black and dirty as its locality, and so harmonised with the cinders that I did not distinguish it until it called out some strange cry. As I passed, it put its head on one side, almost winked at me, looked down among the coals, and I *knew* that it had all kinds of concealed treasures there. I have often seen that magpie, and I feel sure that when those coals are removed, a marine-store shop that exists close by will recover some amount of missing goods. The bird looked a regularly bad character, and I would not have had him in my house on any account. I do not know whether he talks; if so, I would rather not hear him.

However, my acquaintance is not of such a disposition, probably because he has been bred in a more honest neighbourhood. But even as it is, he is a terrible thief, and is never happy unless he is stealing, or hiding, or destroying something. He is not very particular about the object, but is better pleased if it possess one of two qualifications—either of being valued, or looking brilliant. A diamond ring would, indeed, be an acquisition to him, but he would be equally satisfied with a Bristol stone—more so if it were large.

He has lately acquired a bad habit of going upstairs, where he has no business at all, and making the most extraordinary confusion. It is quite a common thing to hear objurgatory sentences addressed apparently to a boy at the top of the stairs and gradually descending, but in fact directed towards the magpie, who has been discovered in a forbidden room, and is being driven down stairs again.

An escapade of this nature occurred quite recently, and on going up to see what mischief the bird might have perpetrated, the master of the house found that his dressing-case had been emptied, and its contents scattered about the room, probably an arrangement preparatory to their interment in the garden.

For the garden is his great treasury. I do not know whether he remembers one-tenth of the localities in which he hides his ill-gotten goods, but if he does so I should be very glad to be possessed of such a memory myself. If all the objects that he has planted only took root and grew, what a splendid harvest there would be. Perhaps he may have some notion of that kind. I remember that such was the case with a very young brother of mine, who used to plant all his halfpence in hopes of a good crop next year.

Mag is not the only representative of the feathered tribes at the school. There is quite a little menagerie there, consisting of three dogs, as many cats,

two hawks, one magpie, several pigeons, a canary, and every now and then a thrush or a starling. These creatures all form an united "happy family," and, with the exception of the canary, eat out of one dish.

I believe that when hawks and magpies live together there is always a comic kind of feud between the two. The hooked beak and formidable claws of the hawk would annihilate the magpie if matters were ever to come to a decided fight. But Mag knows better, and measuring his wits against the hawk's weapons, generally comes off victorious in the end.

The usual feud is in force in the present case, and Mag carries it on single-handed against both hawks. These two birds are unpleasantly given to shrieking, and on the approach of a stranger set up such piercing cries that the ear can hardly bear them. These screams seem to give the magpie unmitigated pleasure, and he generally contrives to testify his amusement in an unmistakable manner.

On one occasion I was trying to make the hawk perch on the end of my stick, and the bird was as usual testifying its disapprobation by those ear-piercing screams. As I persisted in plaguing it, the bird flew from its perch and settled on the ground just behind a stable door, still continuing its cries.

Mag at that time was busily employed somewhere in-doors, but on hearing the hawk scream he came tumbling along in hot haste, overbalancing himself every minute on account of his lost tail, and hurrying in all eagerness to see what was the matter. On entering the stable he screwed his head sideways round the corner, inspected the hawk, walked up to him, flapped his wings, executed a kind of dance, and then, turning his back upon the hawk, strutted deliberately away to his former occupation.

Mag has a certain wicker cage, which he considers to be his own freehold, and resents its occupation by other tenants, or even its removal to another place. This he is pleased to consider an insult, and under

such circumstances sulks on his perch until it is restored to its accustomed locality.

On one of these occasions he recovered his spirits by a nice little revengeful bite. There were alterations going on in the house and garden, and Mag took them to heart, especially as his accustomed haunts were desecrated with bricks and mortar, his favourite trees grubbed up, his buried treasures ruthlessly exhumed, or covered so thickly with gravel that he could not get at them.

In consequence of the gardening operations Mag got sulkily into his cage, and declined to leave it. Neither would he talk, and on being offered a piece of meat he threw it indignantly on the floor, his temper was so seriously disturbed. But his wrath was excited to the highest pitch when the offending gardener sat down in the kitchen, and was regaled with bread and meat.

However he betrayed no external signs of indignation, but sidled very, very slowly along his perch, still retaining his sulky demeanour. Suddenly, just as the gardener had raised a tankard to his lips, Mag darted his beak through the bars of the cage, seized the man's ear, gave it a twist, and then resumed his former composed demeanour.

He thoroughly detested the entire alterations, and spent his life in hanging about the scene of operations. The workmen were obliged to keep a watchful eye upon him, for he was so swift and unexpected in his movements that nothing seemed safe from him. If they laid a stone, and did not keep him out of the way, he set to work and picked out the mortar before it was dry, besides doing any other damage that might occur to his fertile brain.

Among other alterations and additions a new bell was being put up. This was a great point with Mag, who prowled about the workmen, and watched their proceedings with much interest. Presently they came to a standstill. They had inserted two long

screws, but one of the nuts that were to be passed over their ends was missing. And the probability is, that if some one had not been looking out for the magpie, it would have shared the fate of other missing objects, and been buried in the garden.

But that indefatigable robber was closely watched, and his designs frustrated. He had been keeping carefully out of sight of the workmen, and appearing perfectly unconcerned in the matter. But his master knew his disposition, and augured that he was too quiet not to have some mischief in view. And such was the case. For the workmen brought their tools and wires and laid them on the ground, while they bored the necessary holes through the wall. The tools were in general too heavy for him, but the two screw nuts were just the very thing. So, when the workmen were fully engaged, he hopped swiftly to the tools, picked up one of the nuts, and set off with it to the other end of the garden for the purpose of interring it. There was a chase after the thief, and when he had been penned up in a corner, at the expense of much exertion and combination, he condescended to give up the property.

I feel sure that these birds have a perfect appreciation of mischief. If it were only that they stole everything stealable, one might attribute their propensity to mere instinct, but as they seek every opportunity of destroying or injuring anything that they know is particularly valued, surely it must be allowed that they do mischief merely for its own sake.

It is generally said that as the eagle is the lion among birds, so the parrot is the monkey. But I rather doubt it, and would name the magpie as the analogue of the monkey. There appears to be just the same spirit in both creatures, the same love of mischief without any ostensible object, and the same determination in carrying out their plans.

Only there is this distinction. The monkey always

performs his mischievous tricks with an air as if he were conscious of doing wrong, and expected the punishment that used to come afterwards. Indeed, when a monkey has been behaving badly he looks so conscious, that there is no doubt that he is the delinquent.

Whereas a magpie takes matters in a very different point of view. He sets about his piece of mischief with a grave and deliberate air, as if it were a positive act of duty to which he is urged by conscience. It is true that he always avoids observation while he is at work, but that probably arises from a natural wish not to be disturbed in an important task, to which he desires to devote the whole powers of his mind. Then, when his object is completed, he looks rather proud of it than otherwise, or assumes an air of unconcern, as if he had nothing to do with the matter at all.

This peculiar trait of character is well exemplified in the case of the aforementioned magpie. He likes to come and ask for something to carry away, and gets all kinds of things given to him—bits of orange peel, scraps of slate pencil, ends of string, and the like objects, which are generally to be found in a boy's pocket.

On one of these occasions a halfpenny was presented to him. This was a great prize, and he hopped off with much exultation. His master was curious to discover what the bird would do with the halfpenny, especially as he intended to reclaim it, and therefore watched his proceedings.

Mag carried it about in his bill for some time, enjoying the sense of possession, and possibly calculating the possibility of finding a good hiding-place for it. Having made up his mind on the subject, he took the coin to a log that was lying on the ground, and pushed the halfpenny under it. He then hopped off, and inspected the effect from a distance, and, being satisfied with his work externally, returned to

give it a closer inspection. For this purpose he put his head sideways on the ground, and discovered that his hidden treasure was thus visible. In order to remedy this defect, he went off and fetched a flat stone, which he pushed into the opening in which he had placed the halfpenny, and so entirely hid it from view. Another inspection satisfied him that the concealment was complete, and he then turned his back upon the log, began to preen his feathers, and assumed an unconcerned air, as if there were no such thing as a halfpenny in the world.

After he had gone away the legitimate proprietor reclaimed his property. Mag found it out, and came for more money, and, curiously enough, repeated the very same process, even to the fetching the flat stone and pushing it after the coin.

Mag has a wonderful perception of any mischief that can be done, and having discovered it he gravely goes through it even at the risk of discomfort to himself. Within the last few weeks from this time (Jan. 1, 1856) he exhibited himself to great advantage, displaying the unselfishness of his character, and his devotion to his work.

The weather had been very cold, several sharp frosts had taken place, and the boys had seized on the opportunity to make themselves a good slide. After exercising themselves for some time, the hour for school arrived, and they were obliged to leave their slide. In order to restore it to its original freshness, they poured water over it, so that it would have plenty of time to freeze before they came out of the schoolroom. The school window opened upon the playground, and after a while there arose indignant murmurs among the boys. Their master inquired what was the matter. "Look at him, sir," said the boys; "he is walking up and down our slide." There was no necessity to name the offender, for every one knew that none but the magpie could think of such a thing. He had seen the boys actively

engaged on the slide, and decided that they must value it very much. Accordingly, he promenaded the slide in a slow and dignified manner, breaking up the half-frozen mass into innumerable elevations and depressions, and so quite destroyed the smooth surface which had been so carefully preserved. And it is the more curious that he should do so, as the freezing liquid must have been anything but agreeable to his feet during his walk.

He is a great plague to the household department, for he makes it a point of honour to undo whatever they have just been arranging. For example, one of the servants had been employing herself in beating the dust out of a doormat, and when she had completed her task replaced the mat. But Mag had been looking on, and instantly set to work. He hopped off into the yard, and returned with a beakful of dust, which he threw down on the mat. For this piece of impudence he was reviled and pushed out of doors with a broom, while the dust was shaken off the mat. But Mag was not to be beaten, and again returned with a supply of dust, which he threw on the mat, and jumping upon it, scraped and scattered it over the surface in an instant.

Again: the floor of the dining-room had been just washed, when Mag walked in with a beakful of mud, and deposited it on the floor. This was soon scraped off, and Mag went off for a further supply, which he put down behind the servant, and then uttered a loud screech. She stepped hastily back, and, putting her foot on the mud, spread it over the floor herself.

Now I do not pretend to say that Mag in this case intended that she should step upon the mud. I only relate the facts; but it does seem rather more than a mere coincidence, especially after the tokens of sense which the bird has so often given.

There is also on record another exploit of a similar nature. The presiding genius of the kitchen is very proud of her domains, and especially piques

herself on the cleanliness of the floor. One day she had cleaned the floor as usual, and had rubbed the surface of the bricks with some red composition, in order to give them a brilliant appearance. This was a capital opportunity for Mag, who ran into the yard, plunged into a puddle until he had covered himself with mud, and then paraded over the floor, printing off numerous and faithful representations of his feet in brown on the red ground, exactly resembling the impressions of the feet of birds that are often found in fossils.

In the garden frequented by this mischievous bird is a rustic seat on which a cushion used to be placed. But this cushion has lately been discontinued, for the magpie has found out that it is great fun to rip it open and pull out the stuffing. At first the boys were supposed to be the delinquents. but they all denied the charge, and the matter looked rather mysterious. But Mag was one day detected in the very midst of his occupation. He was seen to watch from his post in an espalier apple tree, the occupant of the seat. Hardly had he left the cushion than Mag pounced upon it, tore out several beakfuls of the stuffing, scattered it over the seat, and then tried to look as if the hawk had done it. The whole affair was the work of an instant. The bird gradually pulled the cushion to pieces, and it was thought unnecessary to procure another merely to undergo the same operation.

Mag is a very decent linguist, and can hold a conversation tolerably well, although he never deigned to exhibit his accomplishments in my presence. He learns the names of the masters, of the boys, and of the servants, and practises them in private before he exhibits his powers publicly. He is sadly puzzled at military language, and while the boys are at drill, sits in his tree, and watches their performance with the air of a critic. But he has never yet learned one of the words of command, and

I do not blame him for it, as none but the initiated can comprehend them, and they only by the ring or chime of the words, and not by distinguishing the syllables themselves.

One morning Mag was missing, to the sorrow of the boys, and nothing was heard of him for some time. At last he was brought back by a neighbour, to whom he had been paying a morning call. The whole of his proceedings that morning had been rather quaint.

The man had been working in his garden, when some one behind him asked,

"What's o'clock?"

"Half-past ten," said the man, taking out his watch. Having given the information, he returned to his work. Presently the same voice again asked,

"What's o'clock?"

"Half-past ten, I told you just now."

"What's o'clock?" repeated the voice.

On this he turned round to demand why his interrogator would not take an answer, or whether he was deaf, and, instead of a man, only saw the magpie gravely watching him from the adjoining hedge.

As I have already mentioned, the establishment includes some pigeons. Mag is on friendly terms with them, and condescends to walk about in their company. Their feeding-time appears now and then to excite his envy, especially as he cannot eat the beans and peas on which they are fed. But one day he took a bright idea into his head, and at the pigeons' feeding-time tripped about like them, ran after the peas as they were thrown on the ground, and put on ridiculous airs of being one of themselves, nodding his head like the pigeons, and picking up the peas. At one time he had his bill completely full of peas, all of which he was obliged to throw down again. But he seemed to feel immense satisfaction in his performance.

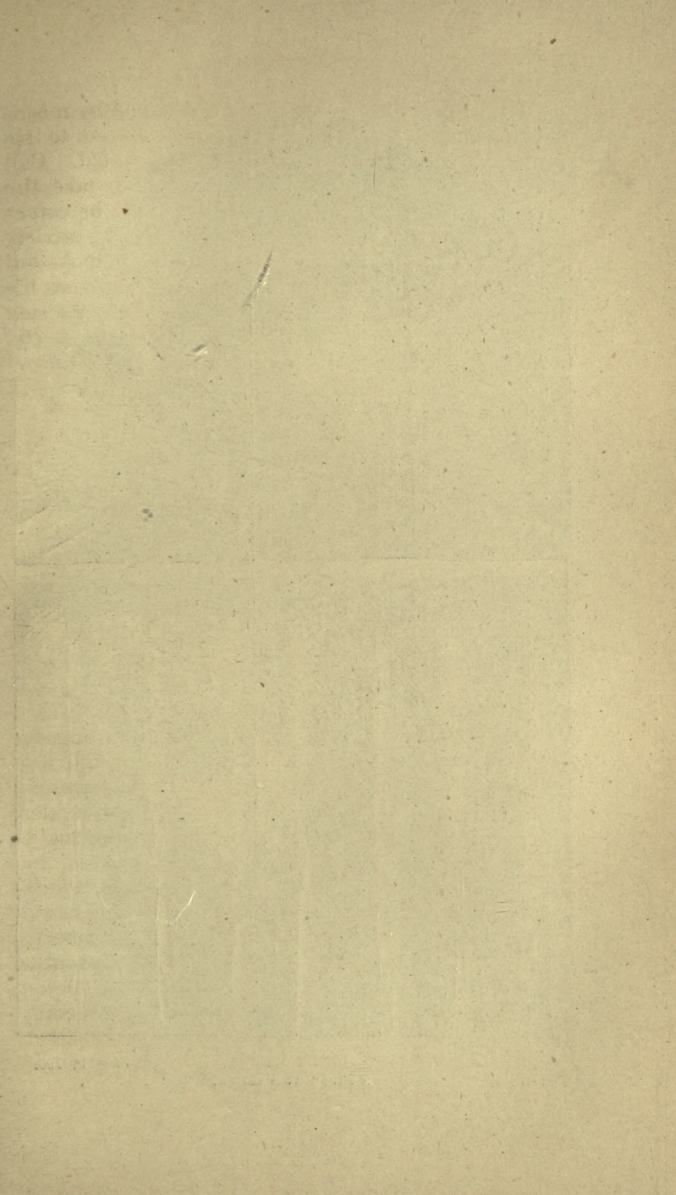
He is very fond of milk and cheese, and by means of the latter comestible he can be induced to approach when other means of persuasion fail. Call "Mag!" and he will come if he chooses to take the trouble. But call "Mag! Che-e-e-se!" and he comes fluttering and tumbling over the ground in his anxiety to procure the delicacy. As to the milk, he looks out for that himself every day when the milkman goes his rounds. There is a little green pan placed by the side of the door, which he considers as his own property. After the milkman has furnished the quantity required by the house, he pours a few spoonfuls into the pan for Mag.

Mag is grateful for the kindness, and usually escorts the man as far as the door. After the gate is shut, he thinks the obligations of hospitality satisfied, and peeps underneath to see if there is any chance of pecking anybody's ankle.

For he has a great predilection for ankles, especially those of females or small boys, and displays much ingenuity in finding opportunities to peck them. If a female visitor is hardy enough to take a seat in the kitchen, Mag is delighted. He hides himself under the chair, and then watching his opportunity, administers a severe peck to the ankles. The aggrieved party jumps up, but sees nothing, for Mag takes good care to keep himself out of view. This goes on until he is discovered and driven away.

Neither is he content with pecking human ankles. I have mentioned the jealousy with which he guards against any occupation or disarrangement of his cage. Now the cage, being a large wicker one, affords a very good perch, and of this one of the hawks took advantage. Mag disapproved of the liberty, and showed his disapprobation in his own peculiar way.

He got into his cage, and sulked, as he generally does when he chooses to consider himself insulted. Meanwhile the hawk sat on the top, looking stolid





MAGPIE AND HAWK,

and unconcerned. But presently the hawk set up a tremendous scream, and began to flutter his wings in a way that showed that something was wrong. And something was wrong indeed, for Mag had slily crept under the spot where the hawk was sitting, had seized one of his feet, had dragged his leg completely through the bars, and was hanging on it spitefully. The hawk was struggling and kicking to loose himself from the bird's beak, but unsuccessfully. When Mag at last condescended to loosen his hold the hawk went off as fast as he could, and doubtlessly took the lesson to heart.

CHAPTER XII.

MAGPIES—*continued.*

Anti-Teetotalism.—Human Magpie.—Offended Dignity.—Cold Bathing.—Ankle-biting Propensities.—Bird-preceptors.—Mag Gardening.—Hawk Persecution.—A Robber and his sad End.—The Laundress's Friend.—An aristocratic Thief.—Nest of Magpie.—A narrow Escape.—Egg-robbing.—A Thief caught in his own Trap.—Carnivorous Propensities of Magpies.—The Magpie and the Birds.—Professor Pica's Lecture and its Results.—Choice of Trees.

AMONG Mag's virtues, temperance cannot be reckoned, for more than once he has been overcome. It so happened that for several days he had been observed to be very lively after dinner, and after he had played a great many pranks, to become suddenly dull, and to go to sleep. The reason of this strange conduct was explained afterwards, for it appeared that after dinner the cups and glasses were placed on the ground before being washed. Mag had found this out, and used to go round and find out those in which some beer had been left, drinking as much as he could. I never saw him on these occasions, for after he had been discovered, precautions were taken and he was forced to adopt more temperate habits. But I think that his behaviour must have resembled that of a very small boy, in company with whose parents I made a picnic visit to St. Cloud.

He was rather a spoilt child, and seeing the rest of the company taking brandy with their coffee, insisted on having some too. Not only did he succeed in his object, but he also contrived to dip a huge lump, or rather square of sugar into a neighbour's brandy, and to eat it. Now French sugar is

very porous, and absorbs a considerable quantity of liquid in a short time, so that the young rascal must have had a tolerable share of the spirit. He was then rather noisy and troublesome, but became quieter after a short time. After coffee we adjourned to the grounds, and stayed there until nearly the hour for starting, when the boy became more noisy than ever. It was then discovered that one of the party had missed his glass of kirschenwasser, and the boy was found to have quietly drunk it while the legitimate owner was absent.

His spirits soon rose to a wonderful pitch, and he performed a series of the most absurd antics on the grass, dancing with grotesque gestures, trying to stand on his head, and always failing, so that even his mother compared him to Mr. Punch. Suddenly he collapsed, fell fast asleep, and had to be carried all the way home, no very pleasant task, as the station and his home were nearly three miles apart.

To return to our Mag. He seems singularly jealous, especially of the hawks, and resents any supposed preference of his rivals. Both Mag and the hawks are very fond of meat, and look out eagerly for it. On one occasion, Mag took his piece of meat, threw it down disdainfully, and would not even look at it. The fact was that the hawk had a larger piece than himself, and his dignity was offended. So he set himself to persecute the unfortunate hawk, and actually did so, until the poor bird gave up the meat merely for the sake of quietude. Mag carried off the meat, ate it, and then picked up his rejected piece, which he finished in a calm and dignified manner.

Like other magpies and birds of the same class, he is very fond of bathing, but, as he has no fixed bathing-place, he is forced to indulge this propensity as he can. He displays much ingenuity in so doing, and, indeed, does what appears almost impossible for such a bird to do. There is a tolerably large cistern

which supplies the house with water, and in this he bathes. Now, the wonder is, not that he should get in, for that is easy enough, but how he gets out again is a marvel that has yet to be explained. In general, when non-aquatic birds get into water too deep for them to wade, they are unable to get out again, and, in consequence, are drowned. And the wonder is increased when the shape of the vessel is taken into consideration. Most birds would be drowned even in a pond that has shelving banks, but in this case the sides of the cistern are perpendicular and smooth, so that they can afford no hold for the bird's feet. If possible, I intend to find out how he manages it.

Why ankles should be so attractive to many birds, I cannot tell, but such is really the case. Few things appear to afford a parrot greater gratification than to administer a smart bite to an unprotected ankle; while most of the corvine family seem to derive the same amusement from driving their sharp beaks at the same object. Ravens, jackdaws, jays, and magpies are all given to this propensity.

I never yet heard of a tame magpie that did not seize every opportunity for thus exercising its beak. There was a tame magpie in a little village in Wiltshire who was gifted with this talent. He was especially fond of the ankles belonging to the females of the establishment, and to a little boy who was yet in the frock period of his existence. He was the terror of the poor boy's existence, and made such raids on his ankles, that he dared not pass the yard where the magpie lived, unless he had first ascertained that the coast was clear. Even then, the ankle suffered occasionally, for Mag used to hide himself until his victim had passed, and then set off after him, chasing him completely along the garden walk.

The female servants were so afraid of him, that they did not venture to pass by his dwelling-place without arming themselves with a broom or a stick.

One of them had neglected this precaution, and was actually reduced to sit down on the stones in order to protect her ankles, and she was found in this absurd position, the magpie pacing round her, and waiting for his opportunity.

The same bird was given to destroying papers that were left about. On one Sunday morning, after the family came back from church, the papers in the rector's study were found to be scattered about the room, many of them being torn to pieces. At first, the general impression was that thieves had been at work, but the delinquent was soon discovered.

It was also fond of stealing and hiding anything that it could carry away, and had for its treasury a hole in the thatch of a barn.

There is a magpie in the Zoological Gardens, who appears to be almost the only happy or contented bird there. Nothing disturbs *his* equanimity, or deprives him of his lively curiosity. There is not much to be done in the way of imitating there, at all events, there are few sounds that a bird *can* imitate, but, as some poultry are kept near him, he makes the best of his position, and imitates the crowing of the cock. He quite startled me one day when I was standing by his cage by the accuracy of the intonation. I entered into conversation with him, and we became capital friends. Before we parted, he gave me a lesson in the art of crowing, and was more successful as master than I was as pupil.

Birds will often give lessons if properly encouraged. There is a bullfinch now living who has displayed immense perseverance in teaching me to whistle an air which he has learned. Sometimes I break down purposely, and then he becomes quite angry, flits from perch to perch, puffs himself into a round ball, and utters short discontented clucks. When he recovers, he goes back to the erroneous passage and repeats it. I often make him whistle

in that way when he displays any disinclination to perform, for he becomes so excited at my stupidity, that he dashes headlong into his song, goes through it triumphantly, and then begins to cluck.

It is curious to see what pains a magpie will take to go through any mischievous task. I lately heard of another Oxford magpie, who displayed great ingenuity and perseverance in his self-appointed tasks. He professed a great friendship for his master, and used to attend him in his garden promenades, occasionally pecking his heels to remind him of his presence.

It so happened that some delicate seeds had arrived, and a part of the garden was prepared for their reception. The proprietor of the garden and the magpie was employed in sifting the earth, and laying the stones on one side. He was occupied with his task, and forgot the magpie entirely. Presently, he happened to look round, and there was the magpie, as hard at work as if he were earning five shillings per diem. The mischievous bird was actually busying himself in replacing the stones that had been sifted out.

This he did in a very scientific manner. One scoop of his beak to the right, another to the left, and there was a hole. He then picked up a stone, dropped it in its place, scratched the earth over it, and the business was done.

He also had a companion in the shape of a hawk, and found great amusement in tormenting it. The poor bird could never get its dinner in peace, for the magpie was always ready to joke about it. Hardly had the hawk his piece of meat, than the magpie would set off after him, and begin to chatter and dance round him, pretending to take the meat. At last this irritated the hawk so much, that he let his dinner fall and rushed at his persecutor. This was just the object of the magpie, who hopped round the

hawk, pounced on the meat, and carried it off. Having attained his object, he would run off with it, followed by the hawk, who, although he could bite harder, and scratch more fiercely, was not able to compete with the magpie in running.

Now, the magpie was not a selfish bird, as might be imagined. He did not want the meat for himself, and always restored it to its legitimate possessor. But he liked to laugh at the hawk, and to enjoy the chase that was sure to ensue.

He was an amusing bird enough, but often very troublesome. It was never safe, for instance, to point out a flower to any one, for the magpie would have it off the stem directly. Nor did he confine his depredations to flowers, for he was once detected in the act of escaping with a bank-note which had been laid on the table for a short time, and which he evidently had understood to be valuable.

This poor bird came to an untimely end, being drowned ignominiously in a water-butt, in which he was found dead one morning

By the way, I forgot to mention another exploit of Mag No. 1. One of his favourite haunts is by a building that was formerly a stable, but is now applied to various purposes, the knife-cleaning department being conducted there. The boy who was employed upon the task had induced a clean collar that morning, and, being unwilling that it should be soiled during his work, took it off, and laid it on a chair. When he came to put it on again, it was found to be covered with mud. Mag was, of course, the agent, and had been watched. He seized his opportunity to pounce on the collar without being seen by the owner, and carried it off into the yard, where there was a nice puddle. He then deposited it in the puddle, jumped on it once or twice, and carried it back to the place where he had found it.

Not long ago, there was a magpie that lived in Eccleston Street, Pimlico. Now as the bird resided

in the odour of aristocratic Belgravia, its demeanour ought to have corresponded thereto. But it was a very wicked bird, a great thief, and ingenious in its thefts. It was supposed to belong to some one, but as it passed a nomad existence, its actual owner was doubtful. There is a kind of parapet running along the windows, and this parapet was the bird's usual promenade. Along this it was accustomed to walk, and pay visits as it passed, looking in at the windows, and saying, "Maggie, Maggie, Maggie." If no one were near, it took the opportunity of running off with anything that was in the way. On one occasion it carried off some letters, and having hidden them in some secret spot, had the impudence to come back for something else. The window belonged to a lady's dressing-room, and once actually while she was in the room, the bird hopped in, saying, "Maggie, Maggie, Maggie," picked up a pair of earrings, and carried them off also. Neither letters nor earrings were heard of again.

In England, magpies generally build their nests in the most inaccessible places, generally on the top of lofty trees, the nest being placed on a branch that will not well bear the weight of a man. I remember nearly losing my life in an attempt to get a magpie's nest. The birds had built in the top of a very tall pine, growing in a paddock in Derbyshire. The tree was devoid of branches until just at the summit, where it branched off like a parasol.

From below, the nest appeared to be placed on a branch about three feet distant from the stem, so that if the tree could only be climbed, to take the nest was an easy enough matter. But the tree was very difficult to climb, from the absence of branches. However, I got on with some difficulty for forty feet or so, and then it became easy enough, as there were knots projecting from the trunk, being the remains of the branches that had fallen off as the tree grew higher. Just as I had reached the top and was

stretching out my hand to take hold of one of the lower branches, the knots on which I was standing gave way, and had not my hold with the other hand been firm, nothing could have saved me.

Even then it was no easy task to get at the nest, which in reality was nearly twenty feet from the trunk, although from the great height of the tree it seemed so close. Moreover, the branch on which it was placed was nearly horizontal, so that I had to crawl along like a sloth, suspended under the branch. And the worst of the business was, that when the nest was at last reached, it was found to be an old one, and perfectly empty. So there was the risk of life for nothing at all, not to mention the scratched hands caused by the thorns with which the nest was surrounded.

But, although in England the nest of the magpie is placed at so great an elevation, in Norway and Sweden it is usually in quite a different situation. There, it is mostly built in a low bush, in front of a house. The fact is, that in those countries it is deemed unlucky to kill a magpie, and so no one would think of hurting the bird, or even destroying its eggs.

But the magpie does not requite this forbearance by similar conduct on its own part, for it is a shameless plunderer of the nests of other birds, carrying off both eggs and young. The mode in which it steals eggs is by driving its beak into them, and so bearing them away, spitted. Sometimes the bird is caught in its own trap, for it is a common trick to empty an egg and fill it with bird-lime. Mag comes by, sees the egg, pecks at it, and gets caught by the lime. For it cannot get rid of the egg, and the lime oozes out and sticks to its feathers. The bird flies at random and dashes itself about, until it strikes against some branch, when the egg is broken, and the lime clogs its wings, so that it cannot fly.

Magpies have a great liking for the young of other

birds, and have often been known to invade the precincts of the poultry-yard. Their beaks hardly appear so fitted for the work of tearing the bird to pieces as those of the hawk tribe, but, in reality, there is little difference in the result or rapidity of the operation. The beak of the hawk acts as a hook and tears the prey to pieces, but that of the magpie acts like sharp pincers, and tears and cuts at once.

These butcher-like propensities are chiefly indulged when the magpie has a family to support, and we may suppose, requires better nutriment. Sometimes, when pressed by hunger, it does not content itself with destroying the young or the diseased, but pounces upon full-grown, healthy birds, and carries them off as ruthlessly as any hawk. A magpie was once detected in the act of killing a full-grown redwing. The magpie was seen struggling with some animal, but on being alarmed, it picked up its prey, and flew with it for about sixty yards. The magpie then dropped the wounded bird and flew off. On examination, a full-grown redwing was found. It had already been deprived of its eyes, probably in order to prevent it from escaping.

White, in his "History of Selborne," mentions a case where several magpies stormed the nest of a missel-thrush. The parent birds fought bravely, but were overpowered by the assailants, who tore the nest in pieces, and swallowed the young alive.

But this hardly seems so strange an event as the attack upon the redwing. It is true that the missel-thrush is a large species of the thrush family, and that the redwing is a small one. But then it must be remembered that the magpies were many in the latter case, whereas only a single magpie was engaged in the former; and also that the object of the one was to get at the tender young, whereas that of the other was to destroy and eat an adult bird.

The nest of the magpie is a singular edifice, and constructed with more art than that of any other

British bird, the long-tailed tit excepted. From the peculiar shape of the bird, it is evident that the nest must be large and roomy, or the poor creature's tail would soon be rubbed to pieces against the sides. Accordingly, the nest is very large, that is, in comparison with the nests of most birds.

It is a most ingenious structure, and well calculated to shield the young from the weather, to which they would be especially exposed, on account of the situation of the nest, and from the attacks of rapacious birds, who are very fond of young magpies. Yet, even the fortified nest, and the sharp bill of the mother, are not always proof against an enemy, as has already been recorded on p. 139.

The nest is externally composed of sticks, and when viewed from below, looks much like that of the rook. But the nest of the latter bird is an open nest, while the domicile of the magpie is regularly covered and thatched, the entrance being merely a small hole just large enough to admit the parent birds. And as the outer sticks are mostly chosen from thorn-bushes, a strong knife is generally required by any one who wishes to take out either eggs or young. For, supposing the parent birds to be away from home, and the nest safely reached, it is no easy matter to abstract either eggs or young. The open hand can generally be insinuated through the *chevaux de frize* of thorns that barricade the door, but the nest is so large, that the fingers seldom achieve more than a mere touch of the eggs, which roll about in a most tantalizing manner. Even if an egg or two could be grasped in the hand, it could not be removed, because the hole that leads to the interior is so small, that a closed hand would not be able to pass through it.

The nest is thoroughly and warmly lined with clay, that stops up the interstices through which the winds might whistle shrill, and give the poor little birds bad colds.

The nest is altogether one of the best examples of bird architecture in existence, and is only rivalled by the edifices of one or two species, such as the wren and the long-tailed titmouse in this country, and a few of the inhabitants of hotter climes.

Legends exist respecting most natural objects, and there is a legend respecting the superiority of the magpie's nest over those of other birds. It appears that "once upon a time" the magpie was the acknowledged professor of nidification in the ornithological university, and to his lectures the other birds resorted, in order to take lessons in that science. Professor Pica belonged to the practical and experimental school of philosophy, and, therefore, was accustomed to receive his classes among the branches of a fine tall pine-tree, having previously conveyed to his theatre an ample supply of building materials. There were present at one of these meetings the rook, the jackdaw, the blackbird, the thrush, and other gentlemen, all professing their willingness to learn, but some, I regret to say, rather conceited.

"Now, gentlemen," said the professor, "you must remember that there is a right and wrong way of doing everything, and that, unless you begin at the beginning, you will be tolerably certain to manage your nests in the wrong way. The first object is to find a good strong forked branch, and upon that you lay your foundation, by placing two sticks across each other—thus."

"Any one might have known *that*," said the jackdaw.

Taking no notice of the interruption, the professor proceeded:—

"On these cross-sticks, you then place seven or eight others, interweaving them as you see me doing, until you have a solid floor, on which you can jump without throwing it down—so."

"I shall not stop any longer to listen to this nonsense," said the jackdaw; "I knew all that long ago."

The starling coincided with him, and the two went off together, thinking themselves uncommonly wise.

"Now," resumed the professor, "comes a neat piece of workmanship, and remember to watch me carefully while I show you how it is done. You take some slender twigs this time, and, insinuating them among the rough ends of your platform, and then working one into the other, you raise the sides of the nest, or when you are married, and come to have a family, your children will tumble over as soon as they begin to walk, and what will their mothers say then?"

At this point the auditors were very attentive, for the idea of being hen-pecked was not agreeable. But the chaffinch, whose surname was Cœlebs, and was an old bachelor who never went in search of a wife at all, took alarm at the idea of children, and, grumbling out something about "a set of squalling brats," made the best of his way out of the field. I am happy to say that he afterwards married a regular scold, who used to force him to stay at home and take care of his five children, while she made calls among her female acquaintance, who one and all despised him.

"The next thing to be done," proceeded Dr. Pica, "is to interweave a little moss, or hay, or anything of a similar character, so as to make a soft bed for the eggs to lie upon. For, gentlemen, you may not be aware that the calcareous envelope of eggs is of a highly brittle character."

"I could have told *you* that," said the rook; and straightway went off to dinner in a field, where he was seen by two scientific gentlemen, one of whom said that he ought to be killed for injuring the crops, while the other contended that he ought to be protected as a friend to the farmer, as he only ate the grains that were infested with worms. But I do not think that the rook was much the better for the dis-

cussion, as the latter gentleman shot him in order to prove, by dissection of his crop, that he *ought* to be protected.

By this time, Dr. Pica was beginning to lose his temper at these desertions, but the report of the scientific gentleman's gun restored his equanimity, and he went on with his lecture:—

“At this stage I would recommend the use of a little clay, which might be nicely kneaded and spread, and then some wool or feathers can be worked into it when wet, so that they will be fixed there when dry.”

“I did that myself only yesterday,” said the black-bird.

“I won't stand this any longer!” screamed the professor, in a towering rage. “Get along with you for a set of conceited hobblederoys, who have only just got your first tail-coats, and pretend to understand nidification as well as your teachers!” And he drove them away in wrath. That is the reason why the other birds can only build half nests, and the jackdaw and starling cannot build a respectable nest at all.

The wren, the dipper, and the bottle-tit, however, called on him the next day, and, after making their apologies, were admitted to private lessons.

To return to prosaic facts. The tree on which a magpie builds is nearly certain to be a healthy, well-rooted tree; not, perhaps, because the magpie is aware of the fact, but because he requires a thickly-branched tree for the proper stability of his nest, and trees that are thickly branched are generally firmly rooted, in order to prevent them from being torn up by the wind.

By the way, it is an invariable fact that, in a copse or a wood, it is always possible to predict the direction which the roots of the trees will take. Those that are placed on the outside send out strong horizontal roots towards that direction from which the

wind can attack them, while those in the centre drive their roots almost perpendicularly downwards, hardly throwing off even a single root-branch. So that, if the copse is circular, the roots of the outer trees radiate like the spokes of a wheel. And if a ditch should happen to run across the path of the horizontal roots, they dip under it, and come up again on the opposite side, so as to preserve an uniformity of depth. I have had practical experience of this phenomenon, for on clearing away an orchard in order to build a gymnasium upon its site, the outside trees were managed easily enough, but when it came to grubbing up those detestable tap-roots, as they are called, the work was something to remember.

There is nothing like practical experience for fixing ideas in the memory, and this experience was very practical. For my boys and myself cleared away an orchard, grubbed up the roots, chopped up the branches and stacked them for fire-wood, prepared the trunks for poles, levelled the ground, and finished by borrowing a horse and cart, taking it up the hills, quarrying the stones, and paving the floor, entirely without assistance. I must admit that our hands were not fit for a drawing-room afterwards, but, as there were no drawing-rooms to enter, it was of little consequence.

CHAPTER XIII.

MAGPIES—*continued.*

Superstition respecting Magpies.—The “odd” Magpie.—Derivation of Name.—Representative Names.—The Battle of the Frogs and Mice.—The Pie used in Heraldry.—Quarrel between Courtenay and Dalzell.—Set a Thief to catch a Thief.—Watchful over Sportsmen.—Trial of Temper.—Mag curtailed.—An arithmetical Magpie.—Parental Love and its Modifications.

FROM the earliest times, much superstitious interest has been attached to the magpie. This subject is so well handled by Mudie that I cannot do better than copy his words:—“Woe be to that beast on whose back it perches, for the magpie perches on dead beasts, and consequently when it perches on living ones it wishes, prophesies, and even dooms them dead! The magpie is thus a bird which excites very mingled and opposite sensations; it is a bird of hope and confidence, and of fear and despair, but the feeling towards it leans upon the whole to the suspicious; and one set of the ignorant spare the magpies and their nests for the same reason that another class never mention the name of the devil except in an under tone and with much respect lest they should come by some heavy or bodily harm.”

“And the magpie filches away money and other little matters, and when they are again found they have much of the peril of witches’ money. Nay, more; the magpies actually take counsel together, conspire, and club their wits, for weal or for woe, as it may turn out. If there is an even number, and all are cheerily met, then happy times to the matrons,

high hopes to the maids, and health and long life to all the family—or the parish, if the place of meeting is in or near the churchyard. But woe be to that house before which there is an assemblage with an odd magpie sitting sulkily apart; and tenfold woe if that sight crosses a lover on his path, or a party on their way to the altar!

"A black pig crossing the door of a fisherman's hut, or even a dead hare detected in his boat when at sea is not more perilous, nor half so much so; for neither lord of the manor, parson of the parish, nor, where these are effectual, bell, book, and candle, can cast out the evil spirit of the 'odd magpie.'

"When magpies are numerous there must be marriage parties in the spring, as well of the young ones as of those that have been left single by casualty. The meetings are for these purposes; the odd one is, of course, unpaired, and the rustic may very likely have brought the terror of it upon himself by killing its mate."

The word "magpie" is evidently compound; and is one of the representative names, which, when rightly applied, are most valuable, as well as most ancient. In the earlier ages, names always expressed qualities, whether the creature named were animal, vegetable, or mineral; and when mankind was the subject the name was always a representative, whatever the nation. Examples of Hebrew representative names may be found in almost every page of the Old Testament, and Egyptian representative names are engraven on the monuments of that extinct and wondrous race. And to pass to times of classic interest, Homer and the Greek writers show abundant examples of this fact, and the Latin writers followed them in after times.

Homer, by the way, has a most happy hit at the representative names in that excruciatingly comical poem, the "*Batrachomyomachia*," the first, and possibly the finest of parodies. For he fills the poem

with the most resounding names, of which the title is an example. These names are composed of words expressive of qualities belonging to the frogs and the mice, whose warlike deeds are told in just the same grand rolling language that had been employed in narrating the war between the Trojans and the Greeks. "*Batrachomyomachia*" simply means "the battle of frogs and mice," and the names of the heroes on either side signify ranal or murine propensities, such as "Mud-lover," "Cheese-scraper," and "Pot-licker."

The American Indians and other uncivilised nations retain the custom, and even change or enlarge the name from time to time, according to the events of life. I do not understand any of these dialects, or I might know what the Cree Indians mean by calling the magpie "Oo-ta-wa-kee-as-kee." As to our title for the bird, it is compounded of "mag" and "pie," the latter being the primary name, and the former super-added. I suppose that we got the word "pie" from the Latin "*pica*," or from the ancient British name, "*piogen*." And the syllable "mag" is as probably added on account of the chattering propensities of the bird, for the word "mag" is used in many parts of England to signify unmeaning talk. So that the whole word simply means "chattering pie," which, it must be admitted, is quite appropriate. Some people fancy that the bird is called a "pie" on account of its pied colour, but that is, in my opinion, just an inversion of facts. For the magpie was in existence long before colours were mixed, or a name given to mixed colours, and thus alternate black and white were called "pied" in honour of the bird. It is, however, possible that there may be yet another reason for the term magpie. Shakspeare calls the bird a "magot-pie," from which "magpie" may possibly be derived. Magot, in the French, signifies "monkey;" and as the magpie is decidedly a very monkey among birds, the term is appropriate enough. However, I give the

preference to neither, and will leave the reader to choose for himself.

Even such a bird as the magpie has been pressed into the service of heraldry, that most representative of all sciences. And, as if the very character of the bird became infused into its painted image, its presence was, on one memorable occasion, the signal for quarrelling and fighting. I here allude to the famous meeting between Sir Piers Courtenay and Sir William Dalzell. The former, an English knight, renowned for his skill in the tournament, appeared in public bearing as his crest a falcon, and for a motto the arrogant words—

“I bear a falcon, fairest of flight;
Who pinches at her, to death is dight
In graith.”

Now, Sir William Dalzell was a Scotchman; and, being instinctively opposed to an Englishman, burned with a desire to put down the conceit of the English knight. And this he accomplished by a stroke of sublime impudence. Next time that Sir Piers was seen in public, Sir William Dalzell made his appearance in a suit of armour precisely copied from that of the Englishman, with the exception of the crest and motto, which were thus parodied. The crest was a magpie seated on a marrow bone, and the motto was :—

“I bear a pie, pecking at a piece;
Who pecks at her, I shall peck at his nese,*
In faith.”

The natural consequences followed; and in the ensuing combat the Scotch knight gained an absurd advantage over his English opponent, conceived and carried out in a manner quite in conformity with his previous conduct. The challenger demanded perfect equality of terms; either party beginning the fray on advantageous terms to forfeit a large sum of money.

* *i. e.* Nose.

When the lists were drawn out Sir W. Dalzell deliberately demanded that Sir Piers Courtenay should have one of his eyes put out as a preliminary, because he himself had lost an eye in a former battle. The whole matter appears by this time to have subsided into a skirmish of wits—at all events in the eyes of the umpires, for they admitted the proposition, and the unfortunate Englishman had to suffer in pocket as well as in reputation.

The magpie, although an inveterate thief himself, seems to have sufficient appreciation of honesty to object to any other thief except himself. If a fox goes prowling along after some rabbits or pheasants, or shows himself in the vicinity of a farmyard, down comes Mag, and sets up such a chattering and squalling just over the delinquent's head that the intended victims take the alarm, and escape before the fox is able to pounce upon them.

On the same principle, he will follow and worry a cat who is looking after a sparrow in the hedge, and if he comes across a stoat he thinks himself bound in duty to persecute it until it dives into its den. Hawks, kites, or owls all meet with the same fate at the hands, or rather at the wings, of this most tender-conscienced robber. He really reminds one of those pious Italian bravos who would not on any account pass a statuette or picture of the Madonna without devoutly crossing themselves and muttering an Ave Maria, probably emphasizing the prayer with a dagger-thrust at the gentleman for whom they are waiting.

Mag is also a horror to sportsmen, whether in search of "game," strictly so called, or of such small deer as blackbirds and thrushes. For birds have a general knowledge of each other's language, even though they may be of different nations, and if a thrush hears a magpie cry out in picine language, "Look out there! here's a fellow with a gun!" he scuds off without delay.

And as he is so sharp in taking care of others, it necessarily follows that he has a very good idea of taking care of himself. I know very few birds so difficult to approach as a magpie, for the rascal is perfectly aware of the range of a gun, and dodges backward and forward among the branches, bobbing his long tail up and down, and twisting his neck like a corkscrew, at exactly twice the distance to which the gun can carry. It is inconceivable how a magpie will exasperate one by his impudence and coolness. And at last the sportsman gets angry, loses all patience, and bangs off his gun at the bird, who seems to consider it a capital joke, flies up perpendicularly, says "carack!" in the most insulting tone, and comes down again in precisely the same place.

In my undergraduate days I was particularly desirous of shooting a magpie in order to stuff the skin, and knowing where the birds might be found, went after them, and was wrought up to the extremest pitch of irritation by their manœuvres. If they would only have flown away, I would not have cared so much, but there they kept about a hundred yards in advance, or sometimes behind me, never coming within shot themselves, and making such a disturbance that no other bird would come near them.

Once I nearly shot a magpie, but that was quite by chance, although I was going to look for them. There is a tolerably deep railway cutting that must be crossed, and the level ground at each side is covered with trees. I was just crossing this cutting, intent only upon trains, when a magpie suddenly flew over the trees and came into view. "Wagh!" cried Mag, in a desperate fright, on seeing the gun, and finding that he had not time to turn, put on the steam, so to speak, and sped across like an arrow. He was just in time, for my shot took off his tail with remarkable neatness, scattering the feathers in all directions, but there was no more damage done.

Mag made a great outcry at the loss of his tail, and steered wild, as the sailors say, without his rudder. I suppose that he afterwards persuaded his friends that tails were out of fashion.

I once did find a nest with the young birds in it, but could not bring myself to shoot either them or their parents until they had been deposed from their eminence. But they were so crafty that, although I never passed their tree without seeing them, I never shot them. A pair of kestrels afterwards took possession of their nest and brought up a family there.

A curious experiment was once tried on the capability of the magpie to count numbers. A man wished to shoot a magpie, and for that purpose hid himself in a hut near the nest. But the bird had seen a man and a gun go in, and kept quiet until the man and gun had gone out again. Next day two men entered the hut, and after a time one of them left it and went away. Mag, however, was not to be so cheated, and remained hidden. The next day the experiment was repeated, with the addition of a third man, two leaving the hut, and one remaining, but to no purpose, for Mag kept still out of sight. Four men then entered, and three came away. I suppose that the bird had reached her extreme point of numbers, for she returned to her nest, and was shot by the fourth man.

Perhaps she had felt tired of this repeated banishment, and determined to run all risks to get back to her home, like a brave wife and mother. And the man who shot her was an unfeeling wretch, in spite of Madam Magpie's thieving propensities, for which her motherly love ought to have atoned.

For the maternal instinct, that scintillula of Divine Love, is a wondrous thing, and ought to be sacred in men's eyes, raising, as it does for the time, the brute above its brute nature, and giving to it the best property of man, that is, love for another. The love of brutes is almost invariably self-love, each for

itself; the *storgè*, or fountain of parental love, only lasting for a time. But while it lasts let it be held sacred, because of the source from which it springs.

CHAPTER XIV.

MAGPIES—*continued.*

Our Friend again.—Cold and warm Baths.—Dialogue from Lucian.—The Allegory explained.—Story of the Goat, the Lion, and the Fox.—Force of Intellect.—Waiting on an Invalid.—Mag turned Gardener.—Green Peas.—Birds understand human Language.—The Magpie in the Cellar.—Mag beaten at last.—Cruel Custom.

I HAVE now a few more tales to relate of our friend, the school magpie, of whom I have already spoken, and I believe that there would be sufficient exploits to fill a volume, if they were all noted down. But I am unfortunately too far from him now, and therefore my knowledge is limited.

His propensities for bathing have already been noticed, but they have lately been carried to an astonishing extent. As to bathing in a basin or a saucer placed inadvertently on the carpet, and thereby deluging it with water, it is too common an event to be noticed. But there are two notable instances, which must be recorded.

There was to be cold meat served up, and the cook had cut some parsley ready for garnish. This she washed, and put into a basin of cold water, in order to have it green and fresh at the proper time. Mag, however, had seen the preparations, formed his own ideas on the subject, and watched his opportunity. The cook was called away for a few minutes, and when she came back, found the basin only one-fourth or so filled with very discoloured water, the surrounding space splashed copiously, all the parsley in the fender, and Mr. Mag very comfortably before the fire, shaking his feathers and preening himself with great satisfaction.

That was bad enough, but there is yet worse to come. There had been some culinary operation performed, which, being intended for a school, was necessarily on a large scale, and produced plenty of dripping. This was poured into a basin and set down. Mag thought that this was a capital opportunity for a bath, but there was no time to be lost in the usual preliminaries. So he flounced into the hot grease with a great splutter, and then, discovering his mistake in a very unpleasant way, dashed out again, knocking himself about, partly in pain, and partly in bewilderment, at the strange sensation of the fat cooling on his feathers. Poor Mag, it was a long time before he got into good order again, not to mention the floor and furniture which he plentifully enriched at the same time.

Then, as to thieving, he is just incorrigible. He never seems happy unless he is either stealing something, or hiding some stolen spoil. And he displays such wonderful address and audacity in his robberies that watching him is all but useless. Indeed, the magpie, and of magpies, this particular specimen, ought to be the bird of Mercury, just as the owl was the bird of Pallas Athene.

See what Lucian says of Mercury. Apollo is supposed to be standing outside Vulcan's forge window, and talking to him while he is at work, just as village idlers always have done, and will do as long as there are blacksmiths and forge windows.

"*Vulcan*.—Have you seen, O Apollo, Maia's new-born infant? How handsome he is, how he smiles on everybody, and shows already as if he would become a great benefit to the world.

Apollo.—Must I call him an infant, O Vulcan, or a great benefit to the world, who is older than Jupiter as far as mischief is concerned?

Vulcan.—And whom may he be able to injure, seeing that he is but newly born?

Apollo.—Ask Neptune, whose trident he has

stolen; or Mars—for his sword, too, he unobserved drew out of the scabbard—not to mention myself, whom he has disarmed of bows and arrows.

Vulcan.—This infant do these things who has scarcely moved himself in his swaddling-clothes!

Apollo.—You will know, Vulcan, if he only approaches you.

Vulcan.—Nay, he *has* approached me already.

Apollo.—What then? have you all your tools, and are none of them lost?

Vulcan.—They are all here.

Apollo.—Look a little more carefully.

Vulcan.—By Jupiter, I do not see my pincers.

Apollo.—You will find them somewhere in that infant's swaddling-clothes.

Vulcan.—He is as light fingered as if he had been long apprenticed to robbery.

Apollo.—Have you not heard him already talking fluently and volubly? And he wishes, also, to wait upon us. And yesterday he challenged Cupid to wrestle, and threw him, by tripping up both his heels in some way. Then, while he was receiving our praises, he stole the cestus of Venus, as she was embracing him on the victory, and the sceptre of Jupiter when laughing; and if the thunderbolt had not been rather too heavy and too hot for him, he would have stolen that too. And Maia tells me that, even at night, he will not remain in the sky, but, through a great love of being busy, descends to Pluto—in order to steal something from him also, you may be sure."

Now all these things are an allegory, teaching great truths under the veil of ordinary language. For Mercury is the abstract of Knowledge, which brings to its possessor the arts, the sciences, admiration, and power. His residence in heaven signifies his knowledge of things to come, principally in reference to astronomical predictions; his visit to earth indicates his power over present things; and

his descending to the realms of the dead, and stealing from thence, simply means that the knowledge of the former generations may be attained by those still living.

That these things should be done while in his infancy, shows that even small knowledge triumphs over physical force where there is ignorance; and his rejection of the thunderbolt signifies that there are things too weighty and too dangerous to be handled by the novice in science. All the heathen mythology is allegorical, and there are greater truths in it than is generally conceived.

There is an old Oriental story—not, however, found in the “Arabian Nights”—which further illustrates this subject.

In the days of old there was an ancient goat, whose beard was white with age, and his hair grey. Now he was a very wise goat indeed, but was unacquainted with the ways of the world. So it happened that he lost himself as he was walking out one day, working out in his mind a problem which had been lately proposed to the goat-nation, and which had bewildered them exceedingly. And the problem was this:—“If a cabbage and a half cost three half-turnips, how many turnips must be paid for twelve cabbages?”

After wandering about for many hours, until he was nearly fainting with fatigue and the heat of the sun, he espied the entrance of a dark, cool-looking cave, into which he went for repose. But at the end of the cave lay a huge lion, into whose home the goat had intruded.

Now the lion had never seen a goat before, and he was astonished at the long white beard, the curved horns, and the grey hair. So he got up slowly, and said in a very deep voice—

“Who are you?”

The goat was much more afraid of the lion than

the lion of the goat, but he plucked up presence of mind, and said,—

“Have you never heard of ‘Aïx the White-bearded?’ I am under a vow to slay one hundred tigers and one hundred lions; I finished my tigers yesterday, and am only at my seventeenth lion, so that I have no time to lose.”

With that he sprung at the lion, who jumped over his head, dashed out of the cave, and never stopped running until he was met by a fox.

“What are you in such a hurry about, noble sir?” said the fox. So the lion told him the whole story, and the fox laughed at him. For the fox had stolen too many kids not to know what a goat was.

The lion’s fear now turned to rage, and, boiling over with fury, he started back again for his cave, followed by the fox, who thought that he should be sure to come in for part of the goat after the lion had eaten as much as he wanted. The goat saw them coming, and was disturbed in his mind. But he thought of a stratagem, went out, and stood boldly in the mouth of the cave.

As the lion and fox drew near, the goat cried in a loud voice—

“Thou traitor fox! did I not pay thee for *two* lions, and hast thou only brought me *one*?”

The lion never stopped to hear further, but flattened the fox with one blow of his paw, took to flight, and was never seen in that neighbourhood again. The goat took possession of the cave, and lived there all his life, as we may see from the corroborative account of Robinson Crusoe, who found him at the end of his den, and was almost as much frightened at him as the lion had been.

So, just as the goat overcame the lion by the force of intellect, the magpie masters other birds or animals. Simply through the power of his mind, he robs the hawks of their meat, which meat, by the

way, he more than once contrived to poke among all the clean linen, when the laundress deposited her basket on the ground.

Some months ago, one of the boys was ill, and was confined to his bed. This was capital fun for Mag, who was accustomed to take advantage of the times when the door was opened, and to slip into the dormitory. There he would stay very quietly until every one was well out of the way, and then would commence a series of pedestrian exercises upon the beds, over which he perambulated regularly, thus going two-thirds around the room and back again without touching the floor. And he got so bold at last, that he positively abstracted the toast from the plate standing within reach of the boy's hand. He seemed to approve of toast, for he robbed the toast-and-water in the same way.

Another time, when the servant came to attend to the beds in the evening, she found that Mag had put a stone or a piece of stick into every bed, and carefully covered it over. And once, when he was on the point of being detected in some of these nefarious proceedings, he dived under the clothes himself, and lay there concealed, until he was brought to light by some one who was acquainted with his tricks.

Once, when he had obtained access to the dormitory he was watched by some one whom he himself did not see. He proceeded, as usual, to all kinds of mischief, and, at last, seeing a tumbler full of water, he deliberately pulled it over with his bill, and when the water had run over the floor, he set the glass up again. I once saw him try the same plan with a glass of whisky and water, but he seemed to have an idea that he was watched, and so, after pulling the glass half over several times, he finally left it.

At the beginning of last spring, he was observed to be very curious respecting the garden, and when the spring flowers began to show themselves, the object of his curiosity became apparent. He had gone

the round of the flower-bed, and had pulled up by the roots every crocus and snowdrop that had made their appearance; and, as if to show that he did so from pure mischief, had laid each flower on the spot where it ought to have been growing.

Lately he was in much the same predicament as Mercury with the thunderbolt, at all events as far as heat goes. Some peas had been boiled, and were still in the saucepan, when the cook turned her back upon them for a short time. It was always a portion of Mag's tactics never to show himself when on the eve of mischief, but to keep himself perfectly quiet in some inexplicable place of concealment, from which he issued just in time to begin his pranks, and to which he generally retreated immediately upon their completion. It was just so in the present case, for, although the bird was not to be seen when the saucepan was taken from the fire, no sooner was the coast clear than he emerged from some unknown cavern, and set to work at the peas. But they were very hot, and scalded his mouth, so that he was seen hopping about with a hot pea held at the very extremity of his beak, and shaking his head as if to cool it.

Birds most undoubtedly have a very tolerable idea of the import of words, and I much doubt whether the expression of learning "like a parrot" is quite so forcible as is generally supposed. I have known many talking birds, and heard of more, and in almost every instance it is evident that the bird is acquainted with the general idea, although not with the grammatical construction of many sentences which it repeats.

A parrot, for instance, who wants to have his cage-door opened, or to see his food-vessel replenished, often picks up the necessary phrases, and never confuses them. I know of a great cockatoo, whose chief delight is that some one should swing his perch round as fast as possible, while he clings tight with his claws. This performance seems to afford

him the highest gratification, and during his progress through the air he keeps up a constant cry of "Oh! what a lark! Oh! what a lark!"

Our friend the magpie has often proved himself to be possessed of this faculty For example :

There is a certain subterraneous abode of some dimensions, comprising a larder, a beer-cellar, a coal-cellar, and a general repository. Mag is very fond of getting into this place, partly on account of the meat, and partly because it is a forbidden locality—the latter being probably the stronger inducement of the two. For if he knew that he was especially prohibited from getting into the fire, it is my belief that he would at all events push his tail between the bars. One day Mag had anticipated the visit of a servant to the cellar, and had contrived to smuggle himself through the door when it was opened. Of course the door was locked when Emma (the servant in question) left the cellar; but Mag would at any time measure the imprisonment against the success, and think himself a gainer.

On that same day a cargo of vegetables was purchased, and the man who brought them was ushered into the cellar, bearing them on his back. When he got well into the dark cellar, he was startled by a voice that suddenly yelled in his ear. He involuntarily uttered some loud exclamation, which called the servants to see what was the matter. And when they came to look, there was Mag, seated, or rather standing on tip-toe, on the top of a beer-barrel, flapping his wings with indignation at the intruding stranger, and screaming at the top of his voice, "Oh! Emma! Emma!"

Poor Mag! He has at last succumbed to a combination, the allied forces having proved more than a match for unaided intellect. His enemies are two kittens, who seem to consider him a capital plaything, and are especially charmed with his tail. He can face a single cat well enough, but when these

two playful animals take him fore and aft he has no chance, and when he runs after one in front, the other attacks him from behind. So Mag, who was in happier times the master, now yields to fate.

Before closing the account of the magpie, I will take the opportunity of alluding to a most cruel custom, which is rather largely in vogue, of slitting the tongues of birds in order to make them speak better. I need hardly say that the effect is precisely the reverse to that intended; but that it should ever have been invented, or that when invented any one could be cruel enough to put it in practice, seems almost incredible.

It is a sheerly superstitious custom, and may only be carried out through the medium of an old sixpence, whose sharp edge is the legitimate instrument for the purpose. This very fact gives the date of the invention, as in our days sixpences are vastly different from the irregular scraps of flat metal that used to go by that name in a former generation. So let us hope that our fair, round, and milled coinage will more effectually put down the practice than feelings of humanity, which have been found wanting.

I have once seen the operation performed on a poor starling, in spite of my remonstrances, which were quite useless, as I was then only a boy, and the operator was a big ostler, who threatened to knock me into the middle of next week if I interfered. Not that I should have objected to that feat had it been possible, as it would have brought me a week nearer the holidays, and I would have taken many a hard knock to bring about that consummation; but the letter is often quite in opposition to the spirit. The poor bird must have suffered miserably, as it continued to open and shut its beak rapidly as long as I saw it.

CHAPTER XV.

RAVENS.

L'Estrange.—“Honi soit qui mal y pense.”—A practical Joker.
—Food of Raven.—Its Beak.—How to see Ravens.—Ravens in a Heronry.—How a Raven fights.—Poets and Ravens.—Mythology.—Story of Apollo and his Raven.—Force of Flattery.—Expanse of Wing and Mode of Flight.—The King of the Menagerie.—A bad Postman.—“When Greek meets Greek.”—Raven's Nest.

“YOUR raven has a reputation in the world for a bird of omen, and a kind of small prophet,” says L'Estrange in his inimitably quaint collection of fables. Oh! that people could only now write with that glorious terseness and forcible compression of language that marked the authors of his day. It is very unfortunate that they sacrificed delicacy and morality too in the determination to write forcibly, so that their writings are hardly fit to be brought before the ultra-squeamish eyes of the present day. And so it is that Chaucer, many of his successors, and in later times Swift and Sterne, are banished from our libraries altogether, or if admitted only make their appearance in an “expurgated” form—a literary milk and water, with the milk omitted. “Honi soit qui mal y pense.”

The pen is the great weapon of the world, and it is a pity that it should be so blunted.

As to old Chaucer, he is a gallant knight, bearing a huge two-handed sword, fitted either to sliver an opponent like a turnip with the blade, or to knock him down with the hilt if he gets within the guard.

Then Swift is an American-Indian—ruthless, pitiless, thirsting for blood, dashing his tomahawk into the brain of his adversary with a yell of exultation, and then sitting over the body and smoking through the handle of the weapon that has laid his foe at his feet: finishing by tearing off the scalp and wearing it for ever as a trophy. Sterne, again, is an agile fencer, the glittering rapier quivering in his hand. You think that he is quite out of distance; one spring, the rapier has passed through the body of his opponent, and he is as far away as before. But now Chaucer may wield nothing more offensive than a cudgel, Swift is reduced to a shillelagh, and as for Sterne, he is obliged to put a button on the end of his rapier, and turn it into a foil.

If things go on according to their present rate of progress, the English language will be sadly circumscribed. Who knows whether these very pages will be denounced as immoral, and readers of 1950 sigh over the depravity of the English clergyman who could write them.

The raven is, perhaps, the best talking-bird in existence, but as I have not been the happy owner of a talking raven, I have very little new information on that subject. A raven did once live in the same house as myself, but he was a young bird, and his powers were mostly limited to the mischief department. There, he was very precocious, and as good an adept as if he had been quite an old bird. His house used to be a certain large flower-pot that was left unused in the garden, but he soon grew out of that habitation, and afterwards preferred perching on the ash-sieve among the cinders.

His principal spite was directed against the flowers, and the destruction that he wrought was at last so great, that he was turned out of the family. He was accustomed to watch the gardener as he was securing a valuable plant, for the bird cared nothing about a plant or flower if it were not of consequence. Then,

when the gardener had moved away, he would make a circuitous progress to the plant, tear it up with one pull, and then leave it prostrate on the ground.

The lady of the house was especially subject to annoyance from him. When she attended to her own pet plants, this mischievous bird was accustomed to conceal himself behind some object, and to watch any flower that she touched. As she passed on to another plant, the raven would hop out, pull it up, lay it on the ground, and then get behind his mistress, so that when she turned round, the plant was destroyed, and no perpetrator of the crime visible. And he was so crafty, that as she turned to look after him, he hopped round and kept out of her sight. At last she was quite afraid of him, and used to doubt whether he were not something more than a mere bird.

One of these birds was accustomed to play practical jokes very much in the style of the parrot mentioned on page 166. He enjoyed a considerable degree of liberty, having the range of a large park. There a number of rooks, crows, and daws used to assemble round him. When there was a sufficiently large crowd to suit his purpose, the raven would suddenly bawl out "Holloa!" The sound of the human voice among them naturally terrified these wary birds, and sent them off in every direction to the infinite gratification of the raven.

Comparatively few ravens are now to be found in England, because there is so little food for them. They chiefly feed on carrion, but forage for themselves with the ability of a Zouave, having but little scruple as to the mode of gaining their provender, provided that it is obtained.

If a raven can find no dead animal, he thinks that the next best thing is to find a living one and kill it. Rabbits, many birds, almost all the small quadrupeds, and even the larger, if in ill-health, fall victims to the raven. If he discovers a sheep stuck fast in a

ditch, or weak with illness, there is an end of the sheep, for the raven goes up to it, and with his long beak soon turns the scale in his own favour by plucking out both the eyes of the poor creature. Then, the shepherd finds it dead—skins it, and carries away the skin, leaving on the ground the useless carcass, of which the raven takes possession. Even the larger cattle sometimes fall victims in this way.

The beak of the raven is his principal weapon, and exactly answers to the dirk of the Highlanders among whom he lives, being used at pleasure as a dagger or a carving knife. The hedgehog itself yields to the raven, and its armour of spikes avails it nothing against the raven's beak, which, being longer than the spikes, soon wounds the poor creature mortally.

This habit of attacking the eye of a dead or wounded animal is sometimes made the means of luring the bird to capture or destruction. Mudie describes this stratagem very graphically.

“To lie down on your back, and lie still for some time, on an exposed part of the hill, is the best way to see and watch the motions of the raven, or to shoot him, if you are so armed and inclined. He is shy of man, and of all large animals in motion; because, though glad to find others carrion, or to make carrion of them if he can do it with impunity, he takes good care that none shall make carrion of him.

“If you are even sitting in any posture that indicates life, he will not alight near you, though he may reconnoitre you on the wing. But if you lie on your back, he will come you know not whence, and hovering round you on slow wing, examine you on all points. If you do not stir, he will drop down at a little distance, and begin to hop in an *échellon* fashion, bringing his shoulders forward alternately after a few hops on each line of the zigzag. Sometimes he will utter his ‘cruck, cruck,’ and pause to see if that makes

you stir, and if it does not, he will accelerate his advance.

“ If you allow him to come sufficiently near, his first salutation would be to dash himself at your eye, but if you have a gun, you can make sure of him long before that; only ‘beware the beak’ if he is merely winged, or otherwise slightly wounded. Notwithstanding, if you take him home, feed him well and heal his wound, he will not only forgive you, but become a faithful servant.”

The warning respecting the beak is not unnecessary, for a raven’s beak is indeed a formidable weapon when guided by so crafty a head. And so bold and confident is the raven, that it has been known to attack even such a bird as the heron, and to keep up a fight for a long time.

The *causa belli* was a nest which a pair of herons had built, and which a pair of ravens, with the supreme impudence of their race, wished to appropriate. At last the herons gained the advantage, and drove the ravens away. It is probable that had the ravens established their nest in the heronry as they wished, many an unhatched egg, or unfledged nestling, would have disappeared from the herons’ nests, and aided in the growth of the young ravens.

There are few dogs who will voluntarily face a raven, who instinctively knows the tender parts of a dog’s countenance, and digs his beak into them so scientifically, that the dog declines further combat with so knowing an adversary. It is like a duel between two men, one armed with a battle-axe and the other with a rapier. If the battle-axe could only hit the foe once, he would be annihilated, but while the ponderous axe swings in the air, its wielder gets bored through and through several times by his agile adversary. So it is with the raven, for as the dog advances, he retreats, and with each step, or rather hop, he delivers a stroke at the dog’s nose that seldom fails to draw blood.

Even the redoubtable gamecock, with all his sharp spurs and dauntless heart, has no chance against such an antagonist as a raven. There was one celebrated fighting raven that had immolated unnumbered gamecocks in succession, and, although a gladiator of fifteen years' standing, was never known to be vanquished. His tactics were always the same. The cock, blazing with defiance and courage, dashed at this sable foe, who just slipped on one side and let his antagonist pass. This was repeated until a favourable opening occurred, when the raven seized the head of his opponent in his beak, crushed it with a single effort, and dropped his lifeless foe on the ground. Those who have suffered a blow from the spur of a gamecock will appreciate the skill and courage of the raven.

The raven is celebrated in the prose and poetic writings of every nation that can lay claim to any literature, and, indeed, is the first bird that is mentioned in the oldest of all books. As to more recent authors, such as Southey, Byron, Longfellow, and, last and most wondrous, Edgar Poe, I need do no more than merely mention their names. But there are old and graceful legends of the raven, some mythological, and some merely fabulous. There is one especially suggestive legend, the outline of which I will give.

In the olden days, when Apollo had entered into the first state of his perpetual youth, he chose his favourite bird. Jupiter, his father, took the eagle; Minerva, his sister, took the owl; Juno, his step-mother, chose the peacock; Venus preferred the dove; and he took to himself the raven. In those days the raven was one of the most beautiful of birds, for its plumage was white as the snow, its beak was rosy pink, its eyes were blue, and its voice surpassed the nightingale in melody.

There was on earth a grove sacred to Apollo, the trees were vines and figs, and roses stretched themselves up their trunks, and bending over formed an

arbour, in the midst of which the fountain Helicon sparkled. It so fell out that Apollo thirsted for the waters of his own sacred fountain, and so he called the raven to him, and giving the bird his cup, bade him descend to earth, and bring him some of the cool water. The raven took the cup, and sought the fountain.

Now the raven was a very vain bird, and if he had been formerly proud of his looks and voice, he was ten times prouder since he had become the favourite of Apollo. So he stood long on the edge of the fountain, admiring his beauty, and then burst into song, extolling himself and his patron.

Then he thought that he would refresh himself with the fruit, but it was not quite ripe, and after tasting several bunches of grapes and some figs, he determined to wait there until the morning, when they might be ripened.

In fine he idled away his time, until he remembered that he had been absent for seven days. So he filled the cup, and seeing a brilliant serpent gliding in the grass, seized it in his beak, and carried it with him.

He came before Apollo, and made the excuse that he had found a serpent polluting the sacred waters, and that he had just vanquished him after a combat of seven days. But Apollo seized the lying bird, and hurled him to the earth. He flew immediately to contemplate himself at the fountain, but the first glance revealed black plumage, and when he uttered an exclamation of horror, his voice had lost all its melody.

Both in mythological and fabulous history the raven seems to suffer, although Gay did what he could to rescue the bird from the reproach. There is a fable not very generally known, where the raven measures his wit against the fox, and loses in the encounter. The fox, it seems, had been deluding an unfortunate dove, by means of threats and promises, to pay a

tribute of an egg every day. The raven found it out and, true to his character, warned the dove against her persecutor, and so deprived the fox of his daily egg.

He, being very angry, determined to avenge himself, but being too cunning to make any open attempt, feigned a vast admiration of the raven, praising his powers of flight, his conversational abilities, and, above all, his peculiarly majestic walk. The raven felt flattered at the applause of so excellent a judge as the fox, and descended in order to give a specimen of his elegance in walking.

"That is indeed exquisite," said the fox, "and as long as you are on the ground, and sheltered by the bushes, I can understand how it is that you can walk so straight. But when you get up into a tree, or walk on the top of a house, I wonder how you can keep your balance when the wind comes the wrong way, and blows the feathers into your eyes."

"Easy enough," said the raven, "that is by the help of practice. And then if the wind becomes too strong, all I have to do is to put my head under my left wing, and then I am quite comfortable."

"What!" cried the fox, "put your *head* under your *wing*. Impossible! I never shall believe anything so wonderful until I see it with my own eyes."

So the raven popped his head under his wing, and never took it out again, for the fox ate him on the spot.

The wings of a full-grown raven have some four feet of expanse, although the total weight of the bird is only two pounds. This, by the way, will give an idea of the enormous size of the wings which a man would require if he were again to attempt any Icarian exploits.

The flight of the bird is strong and steady, suffering less from the wind than its relatives the crows and rooks, who may be constantly seen trying to make head against a high wind, and then,

giving up the struggle, to drift helplessly away. When it descends upon some object, which either attracts its curiosity, or seems likely to serve for food, the raven never alights directly upon it, but settling at some little distance, advances stealthily in a series of long hops, generally in a circular direction.

When several ravens are in the air at the same time, they often seem to play at mobbing each other, striking and cuffing one another, just as they would strike at a heron or an owl. Sometimes, too, they seem to lose their balance, to tumble over on their backs, and fall towards the ground, something after the fashion of the tumbler pigeons, uttering at the same time a loud croak. It appears that this effect is produced when the raven scratches itself with one foot, which action necessarily disturbs the centre of gravity.

Excepting the ravens at the Zoological Gardens, whose confinement in the small cage cramps their ingenuity, and one who was promenading the pier at Dieppe in a majestic and contemplative manner, the last living raven that I have seen was in the same miniature menagerie that contained the miserable eagle who was mentioned on p. 5. With the exception of a ferret, he was the only happy individual there, for he had a small range of some twenty yards in length, by two in width, and could hide himself under a water-butt, or conceal in the same damp spot any article that he could manage to steal.

There was a cage containing several hawks, and another in which were some egrets, and I noticed that none of the birds perched near the bars of their cage. This precaution was rendered necessary by the mischievous conduct of the raven, who was accustomed to parade before the cages after the manner of a sentinel, and to deliver sundry pecks against any animal who approached sufficiently near the sides of the cage. And so completely were they under subjec-

tion to him, that when I hung some pieces of meat between the bars, the hawks did not dare to remove them, and after a while the raven walked very quietly to the pieces of meat, dislodged them, and carried them away to his treasure-house under the water-butt.

When I entered the inclosure, I saw at once that he entertained nefarious designs against my heels, and kept him in view as much as possible, though he was too sharp for me once, and succeeded in getting behind me, in a spot where I could not turn very rapidly. So I gave a violent kick in his direction, a hint which he quite understood, and in consequence I felt easy about him.

While talking to the man in charge, I happened to take a letter out of my pocket, and was looking at the address. The raven screwed such an inquiring look upon the letter, that it was evident how earnestly he coveted it. So I dropped the envelope, as if by accident, and then walked away. With one hop, the bird pounced on the paper, tore it to shreds in an instant, and carried away the largest piece, together with the seal, to his hiding-place under the water-butt, from whence he emerged no more, having done his duty, but kept watch like a bull-dog in a kennel. I fancy that he afterwards ate the envelope, but I am not quite certain.

The ravens at the Zoological Gardens seem rather depressed in their spirits, and find but little scope to exercise their talents. But, now and then, the cunning raven nature peeps out, especially when food is in question. Each of the birds receives a piece of meat, and on one occasion, when the first portion was handed in, Raven No. 1 contrived to bury it in the dust, without the knowledge of Raven No. 2. The second piece was then put into the cage, and seized by Raven No. 1, who ate it with great composure, and as if there were nothing on his mind. Having finished it, he disinterred the buried meat, and ate that also, leaving his companion dinnerless. .

The nest of the raven is mostly placed on some very tall tree, or on the ledge of an inaccessible rock. This is an useful precaution in some respects, but still has its disadvantages, as all the young birds seldom come to maturity, for they tumble over the edge of the nest, and not being fledged, are killed by the fall. Sometimes they fall into bushes, or some soft substance, which breaks the fall, and it is from such unfortunates that the tame ravens are generally taken.

CHAPTER XVI.

JACKDAW.

A Bird of low Tastes.—Making sure.—Muzzling a Jackdaw.—Different Modes of destroying Prey.—The contemplative Man's Recreation.—A sociable Jackdaw.—Thrice slaying the Slain.—How to shell Oats.—Jack travelling by Rail.—His Love of Bathing.—Nests of Jackdaw.—Bird-nesting.—Materials of Daw's Nests.—Alliance between Daws and Rooks.—Jackdaw and Cat.

THIS is the smallest of the Corvidæ, or crow tribe, the expanse of its wing being only twenty-nine inches, and its weight not one pound. It is conspicuously distinguished from the rooks and crows by the grey tint of its head and neck, which contrasts so forcibly with the general black hue of the plumage that it can be discerned at some distance, even when the bird is on the wing. It is very easily tamed, and is almost as amusing a bird as the magpie.

I have had the opportunity of observing one or two tame jackdaws, but never saw one that could talk well, with the exception of one who used to hang about stable-yards, drive imaginary coaches, rub down imaginary horses, and swear like ostlers, who were, unfortunately, not imaginary, but unpleasantly real—but he was a bird of low tastes, and we will have nothing to do with him.

The first jackdaw that we possessed was purchased by a younger brother, who had just attained to the dignity of trowsers, and with the pocket-money belonging to his new habiliments had bought the jackdaw from a boy. He brought his purchase home; and,

having heard that the wings of birds ought to be clipped, went manfully to work with the scissors. First, he cut off every feather on both wings, and then sheared away the tail; and, to make everything quite sure, he returned to the charge, like the Red Comyne, and snipped away all the feathers that grew under the wings. His pet was now fit for exhibition, and great was his chagrin at the universal laugh that greeted the presence of the disfigured bird. Certainly, it was a very absurd sight, as it flapped its featherless arms after the manner of a penguin, and tried in vain to comprehend the absence of its tail.

However, tail and wings grew again in the proper season, and the bird became a favourite among us. He was not a very young bird, and had a bad habit of biting our fingers; but we cured him by holding his beak between our fingers so that he could not open it. Afterwards we thought that holding the bird's beak was rather a waste of time, and manufactured a muzzle from some tape and string, which was applied whenever Jack became vicious, and was thought among ourselves to be a great stroke of art.

He was very fond of mice, a supply of which animals never was wanting, as our house was built somewhere in the reign of Elizabeth, or at all events reported to be of that date. Consequently, mice ran rampant; and, by means of traps judiciously located and baited, so many were caught daily that the jackdaw might have lived entirely on mice if there had been no cats in the house, who consumed the greater number of the captives.

If we gave him the mouse before killing it, he used to gripe it across the back in his beak, and then by a violent shake, the mouse was instantaneously killed. Then he would hold the mouse tightly with his claws, tear it to pieces with his beak, and eat it with singular rapidity; and it was rather remarkable that he never spilled one drop of blood, but continued so to tear it that no blood appeared. I

have since seen several jackdaws eat mice, and they all do so in this bloodless manner.

But when we gave him a cockchaffer, or any large insect, he used to act in a very different manner. He first killed it by a single bite across the thorax, just as if he were an accomplished entomologist, and knew the vital parts of an insect. He then held it down on the perch by means of one foot, and surveyed it for a few seconds. His next operation was to twist off the legs, wings, and head, which he did in a very deliberate and delicate way, using the extreme tip of his beak for the purpose, and letting the severed members drop on the ground. He then cleared the abdomen of all the viscera, pecked open the thorax, and picked out as much of the muscular contents as he could manage, and rejected the horny rings that enclosed them.

Sometimes he would make a cockchaffer last him nearly half an hour, much in the same spirit that induces us to waste so much time in the fascinating pursuit of eating walnuts. Izaak Walton was quite wrong in his aphorism that Angling was the contemplative man's recreation. Did he know what Walnuts were?

Of the ultimate fate of our friend Jack I am ignorant, for I had to go to school, and never saw anything more of him.

The next jackdaw that has afforded me the pleasure of a personal acquaintance is, I hope, still in existence, although it is now rather more than five years since I saw him last. Again I was at school, but as master instead of pupil, and this jackdaw belonged to one of my boys. Our acquaintance began in rather an eccentric manner. On the evening of my arrival at the school, I was walking in the garden, arranging various scholastic matters in my mind, when I was startled by a loud squall close to my ear. It was the greeting of the jackdaw, who was perched on the branch of a tree that partially overhung the path, and

thought that, as I was not sociable enough to begin the conversation, the task devolved on himself.

Jack and I became capital friends, although I used to plague him sadly sometimes, just to see how he would defend himself under distressing circumstances. He was nearly proof against most trials, and, indeed, generally contrived to avoid them, for he was so wary and active that to catch him was almost an impossibility, and not even to be thought of by any one who did not know his tricks.

But the most discomposing event to him was a captivity in a butterfly net, the very sight of which would send him to his post of refuge. All his energies seemed to depart when he was once taken, and although he would fight desperately and peck savagely at the net while he was free, yet the very fact of captivity seemed to destroy his presence of mind, and he could only flutter and send forth direful screams.

He was quite as fond of mice as the former jackdaw, and had a peculiar fancy for little birds.

Whenever we killed any wasps, some hundreds of which were immolated weekly, they were laid before the jackdaw, who was very fond of wasps and bees, but perfectly aware of their sting. He never could be induced to believe them really dead unless he killed them himself, and so he used to carry out, as far as is compatible with physical possibility, the feat attributed to Alexander, of thrice slaying the slain. The mode of proceeding was always the same. He hopped within a foot or so of the wasp, and, making a circuit round it, surveyed it attentively. Having so far made up his mind, he jumped forward, caught the wasp in his bill, gave it a sharp bite, and tossed it into the air. When it fell, he repeated the process, which was continued until he had reduced the insect to a shapeless mass.

Beside the meat, mice, and insects, he was accustomed to eat oats as a kind of dessert. The grains were never eaten entire, but the bird always shelled

them before swallowing them. How he did it I never could imagine, although I have watched him for an hour at a time. Each separate grain was pressed against the floor under one claw, and then, with one peck and twist, the husk would be driven aside and the kernel remain fixed by his claw.

He took a great fancy to me when he found that I would give him a handful of oats now and then, and would even allow me to stroke his head, a privilege of which he was particularly chary. And it was some time before he could deny himself the gratification of a sly peck at my fingers. However, as in such cases I swept away the oats, he learned to behave himself properly.

Being quite a man of the world, he possessed great capability of accommodating himself to circumstances; and appeared equally at home whether sitting among the laurels in Warwickshire, or on the apple-trees in Wiltshire. But the transit from one place to another was always a sore trial to him. He always travelled backward and forward with his master, spending the holidays at home, and the remainder of the year at school; his travelling carriage being a wicker-basket.

On one of these occasions I saw him quite overcome, for his master thought to indulge the bird with a view of the scenery, and held him up to the window. Poor Jack, however, was terrified almost out of his senses by the sight of trees and hedges apparently rushing past him, and with a great spluttering dived into his basket head foremost, stuck his beak between the interstices at the bottom, and remained perfectly still and silent for nearly half an hour. At the expiration of that time he feebly muttered "Ja - a - ck!" in a kind of suggestive manner, and then summoned up sufficient courage to put up his head and drink some water out of a phial which his considerate owner always carried with him when travelling with the bird.

After partaking of that refreshment, he became

more than usually loquacious, and I very much regret to say that an irascible old gentleman was so angry with the bird, that, after muttering sundry threats, he positively changed carriages at the first opportunity. His horror that a bird should dare to talk in the same carriage with *him* was most ludicrous.

Jack's love for bathing was unquenchable, and I really believe that, if he could have induced his friends to supply him with fresh water, he would have continued bathing all day long. I have repeatedly refilled the basin immediately after he had finished a bath, and seen him jump into it again almost before it was fairly on the ground. All weathers were the same to him in that respect, and whether the thermometer pointed to eighty degrees or twenty degrees, it was all the same to Jack. Ice always puzzled him mightily.

Even in a pelting rain, he could be induced to leave his loft, and bathe in the open air, by the sight of his leaden bath placed outside the stable. On such occasions, he used to poke his head through a broken pane of glass, and survey the preparations. Then, he would descend the ladder with the greatest deliberation, and walk up to his bath. After tasting the water once or twice, and sidling round the basin, as often he jumped into the very middle, and looked about him with an air of immense self-satisfaction. After these invariable preliminaries, down he went to the bottom of the basin, and with his wings sent the water flying like a shower in every direction, until he had completely emptied the basin. He then returned to the loft, and fluttered about until he was quite dry.

Any loud noise always excited him, especially the sound of a human voice speaking at a higher pitch than usual, and he never failed to answer it by screaming at the top of his own voice.

His master afterwards entered the army, and went

to the Crimea, but I have not heard whether he took the jackdaw with him, although I should not be in the least surprised to hear that he had done so, and that Jack had made himself quite as comfortable in the camp as in the school.

As to nests, daws have not the least idea of their construction, although they will put together a bundle of hay and sticks, and lay their eggs upon it. But as to locality, it is rather difficult to say where daws will *not* build. Old towers are very favourite places, and, indeed, a hole in any old wall is generally occupied by the jackdaws, provided that it is at a sufficient height, and that it has not been pre-occupied by a starling. In ancient buildings, the daws, pigeons, and starlings are generally seen nidificating in close proximity, and perfectly amicable in their intercourse with each other.

Daws will also build their nests on high trees, or, I should rather say, will take possession of the deserted nests of other birds, and, laying upon them a fresh stratum of hay, bring up a colony of young as composedly as if they had built the nest themselves. Lofty cliffs are generally much frequented by the jackdaws, who do not seem to show much fear even in the proximity of the hawks and other rapacious birds that inhabit the same localities. Probably they trust to their aggregate power for defence from the individual attacks of strange birds. Even the Druidical remains at Stonehenge are inhabited by jackdaws, who find the stones sufficiently tall to keep their nests out of the reach of the idle lads of the neighbourhood.

And, by way of choosing a singular position for their nests, a colony of daws near Chichester, built annually in the rabbit burrows of a warren. The boys were accustomed to get at the young by listening at the mouth of the holes, and then, if they heard the cry of the young birds, they twisted them out with a forked stick.

Boys are really ingenious when they are engaged in any predatorial pursuit, especially if it relates to that most universal of instincts, the chase. For the word "chase" includes all kinds of hunting, whether the object is a man, a quadruped, a bird, an insect—or a steeple.

In my own egg-hunting expeditions, we invented all kinds of apparatus to enable us to procure the objects of our search without injury. We carried enormous quantities of string in our pockets for the purpose of lowering the eggs to the ground, when there was danger of breaking them in the descent. The eggs were first wrapped in a bundle of leaves, which was tied up in the handkerchief if we had one, or put into the cap if we had not, or, if we had neither—which was a very common circumstance—the shoe would answer the purpose quite as well.

As to hats, indeed, I never had but one hat at school, and that I wore for four months without either top or brim; for as the former was kicked out and the latter torn off in a skirmish, I contented myself with the cylinder whenever I wore anything on my head.

Then there are many birds who build down at the bottom of decayed trunks of trees, and they were the most tantalizing of all, for we could see the eggs lying many feet below us, and quite out of our reach, for the tree was too thick to be cut through with our knives, and the strings and hooks always loosened their hold, so that the eggs broke.

At last we conquered them by carrying with us a jointed fishing-rod, and a little bird-lime; so that, by preparing the end of the rod with the sticky substance, and screwing it, as it were, upon the eggs, we contrived to raise them from their retreat without damage.

The substances which daws will use for their nests are quite as variable as the localities in which

they place them. Lucifer match boxes have been found in their nests, and one ingenious bird stole a number of clothes' pegs for that purpose. One colony of these birds was so mischievous as to steal the wooden labels used for marking plants in a botanical garden. It was no use to plant the labels, for as fast as they were put in the ground, the daws carried them away. No less than eighteen dozen of the missing labels were afterwards recovered from a single chimney.

Rooks and daws harmonize very well with each other, and seem to hold lengthy conversations. There is a curious account of this peculiarity in Mudie's "British Birds," which I cannot but present entire.

"In some places, one would think that there is more in their winter associations than merely accidental meeting on the same pastures. In the latter part of the season, when the rooks from one of the most extensive rookeries in Britain made daily excursions, of about six miles, to the warm grounds by the sea-side, and in their flight passed over a deep ravine in the rocky sides (or rather side, for they inhabited the sunny one), in which there were many jackdaws, I have observed that, when the cawing of the rooks on their morning flight was heard at the ravine, the jackdaws, who had previously been still and quiet, instantly raised their shriller notes, and flew out to join the rooks, both parties clamouring loudly, as if welcoming each other; and that on the return, the time of which was no bad augury of the weather of the succeeding day, the daws accompanied the rooks a little past their ravine; then both cawed their farewell and departed.

"What is more singular, I have seen, too frequently for its being merely accidental, a daw return for a short time to the rooks, a rook to the daws, or one from each race meet between, and be noisy together for a space after the bands had separated.

With the reason, I do not interfere, not being in the secret of either party; but the fact is as certain as it is curious.

“In order that any one who pleases may investigate the matter, I may mention that the rooks were from the woods of Panmure, the daws from the glen of Pitaisley, and the feeding ground was the low part of the parishes of Monifeith and Barry, all in the county of Angus.”

I lately heard of a mischievous jackdaw, who was accustomed to indulge his propensities for teasing, by robbing the cats of the mice which they caught. And he was very ingenious, for, knowing well that to take a mouse openly from a cat was impossible, he waited until the cat began to play with her victim after the fashion of cats, and then pounced on it before pussy could reach it. Having secured the mouse, he would fly up into a tree, and triumph over the cat. However, he would allow the mouse to be ransomed for a piece of sugar.

CHAPTER XVII.

ROOKS.

Distinction between Jackdaws, Crows, and Rooks.—Scientific Controversies.—Conflicting Testimonies.—Discrepancies reconciled.—Wariness of the Rook.—Rook-shooting.—Sword-practice.—Phenomena produced by instantaneous Death.—Air-guns and Cross-bows.—Rooks subject to Epilepsy.—A Servant's Revenge.—Rook-pies.—A roasted Starling.—Scarecrows.—Rooks half-seas-over.—Curious Mode of catching Rooks.—Services weighed against Injuries.—Curious Instinct.—White Rooks.

To a superficial observer, the jackdaw, the crow, and the rook, bear so great a resemblance, as to be easily mistaken for each other. But there are really such decided marks of distinction, that the three birds can be recognised at a distance of many yards, and even when on the wing. Putting out of the question the inferior size of the jackdaw, which would, indeed, be scarcely observed, the marks of difference are briefly these. The crow is entirely black, the jackdaw has a grey patch on the head and the back of the neck, and the rook bears a white spot on the base of the bill; and this spot is so conspicuous, that it may easily be seen, even when the bird is at some height in the air.

Few birds have caused so fierce a controversy as the rook, and that not only among scientific people, who live in a controversial atmosphere and are always quarrelling, but among practical husbandmen, who do not know what *Corvus frugilegus* means. Piles of "communications" have been laid before learned societies, and learned men have read them, one

learned man in favour of the rook, and the other against him.

Then, if we come to the practical men, we find one experienced farmer suffering so much from the depredation of the rooks on his wheat and potatoes that he was forced to extirpate them, and then another practical farmer comes forward and tells us, that he could get no crops in consequence of the grubs and wireworms, until he imported a colony of rooks.

Here are two extracts from reports on the subject of rooks and their food:—

(1.) "He has repeatedly shot rooks, and on opening them for the purpose of pursuing this interesting and important inquiry, has invariably found nothing in the craw but masses of grubs, maggots, and the wireworm."

(2.) "As many as three or four hundred grains of wheat have been found in the crops of several of them that have been shot, and one hundred is a small complement."

So much for the food: now let us see the views taken by practical men, and enforced by examples, of the benefits or injury that the land derives from the rooks:—

(1.) "A farmer said that he had carefully examined three drills of potatoes in a tolerably long field, and counted the number of places where the seed had been removed, and he had come to the conclusion that here was not more seed left in the three than would make two drills complete. Another had visited the rookery,

(2.) "In the year 1825, our fields were so completely overrun with the wild mustard that for six weeks there was not a blade of corn to be seen, and every barley-field was covered as with gold; but on the Earl of Traquair's fields, around the rookery, there was scarcely a single plant of the noxious weed to be seen."

to watch the habits of its tenants, where he found, by computation, about five bushels of seed-potatoes lying strewed about. There was a constant coming and going of more than a thousand rooks with seed-potatoes.

. . . . A ten-acre field, that had cost £100 for manure, I found to be sadly abused by the rooks. There was not a single plant alongside of which there was not a hole for the purpose of getting at the tubers."

What *are* we to make of these discrepancies? At all events, granting that the story is fairly told on both sides, the balance seems so nearly equal, that we ought to follow the example of our laws when there is a doubt, and take the humane view of the case.

But I am not so sure that in these cases of potato, turnip and corn stealing, the rooks take the healthy plants, even though they may carry them away to their nests. I think that the search of the bird is for some concealed grub, and one of my chief reasons for so thinking is, that the potatoes were found strewed about under the nests in huge quantities. Now, if the birds had eaten the potatoes themselves, they would not have let them fall to the ground, and the evident supposition is, that the young birds received the potato entire, in order to save the time of their parents, and then, after pecking out the hidden grub, tossed away the useless tuber, just as we should throw away the nutshell after eating the kernel.

It must be furthermore observed, that the potatoes and other seeds were also found lying *on* the ground in great numbers, close to the spot where they had been sown. And this looks very much as if the bird had extracted the grub, carried it to its young, and left the empty seed on the ground.

There are so few instances where destruction is necessary, that it is always best to be on the humane side of the question, especially as real humanity is not particularly rife just now.

Yet, I must confess that in my more thoughtless days, I have more than once shot a rook, not for any grudge against the bird, or from the ordinary instinct of killing, but simply because rooks are so exceedingly wary that it is very difficult to get within gunshot of them.

I have shot at three, and killed two, the first being only an explosion of temper, as I had been trying to get a shot at the bird for a very long time, and with complete unsucccess. At last, he settled in a field, at least four hundred yards off, and being irritated with the creature, I fired at him, and, as may be expected, missed. However, the ball, for I carried a rifle, knocked up a cloud of dust about his ears and frightened him desperately, so that I was partially consoled.

As to the others, there was something of an adventure connected with each. Both of them were slain by means of a boat, in which a companion and myself were seated, and looking out for water-hens, which are tolerably plentiful within a few miles of Oxford.

We were skirting a field, our heads just reaching above the bank, when my companion suddenly stooped, snatched off his hat, and told me, in a voice choked with emotion, that there was a "jolly big crow in the field, who must be settled." And sure enough, a black head could just be seen at intervals through the tufts of long grass and flowers that overhung the

bank. So I pushed the gun through the herbage, and getting a glimpse of the bird, fired for the spot where he was likely to be.

He did not fly away, so I landed, and went to pick him up. But, to my great astonishment, he suddenly rose, and dashed at me like a bull-dog. I had no conception before how sharp a rook's beak is, or of the exceeding power of the strokes that he makes. For he does not peck only, but launches his whole body at once, thus inflicting a tolerably severe blow. So he had to be knocked on the head with a ramrod. On regaining the boat, my very excitable companion had disappeared from his proper seat in the stern, and was lying at full length among the stretchers, scarlet in the face, and screaming with laughter. Some time elapsed before he could tell the cause of his merriment, but at last he contrived to master himself sufficiently.

It appeared that, probably from long habit, I had been handling the ramrod after the manner of a broadsword, and the sight of an individual scientifically delivering cuts three and four, for the purpose of immolating a rook, was too much for his feelings. For all that, it was a brave bird, and made the effects of its courage felt for some days afterwards.

The second time, and the last, that I killed a rook, the deed was, if possible, more inexcusable than the former, but the gun almost aimed itself, and went off automatically. The fact was, that, while I was looking after water-hens, a loud "caw" sounded overhead, which proceeded from a rook who was flying over the river, and was uttering a cry of terror on catching sight of the gun. The report of the gun almost blended with the cry of the bird, and then a very singular circumstance took place.

The rook was suddenly arrested in his course, his wings were both driven upwards, and the bird remained so still that my companion declared him un-

hurt and only-frightened. Suddenly, a whole cloud of feathers flew from him, then his head dropped to the full extent of his neck, his body seemed to collapse, and he fell close to the boat, splashing the water in our faces. On picking him up, his body was seen to be so riddled with shot that his skin if dried would have made a very tolerable sieve. His head and neck had fared quite as badly.

I would not have narrated this incident, were it not for the very curious effect produced on the bird by instantaneous death. This is the third similar instance that has come before my notice.

The first was a horse, who received a charge of seven buckshot in the back of the brain, and stood for nearly a quarter of a minute before he fell. The vertebra nearest the skull was completely shattered, and the spinal cord severed.

The second was a sky-lark who was shot as he began to ascend, and continued the ascent until he had reached an elevation of nearly one hundred feet. He then descended on precisely the same spot from which he had risen. On taking him up, it was seen that he had been struck by one shot only, but that one shot had passed completely through the brain.

In all these cases, the impulse must have been given to the body, and life being instantaneously destroyed the body still continued to obey the original impulse until the nerves lost their power.

As to rook-shooting, properly so called, it appears to be rather a cowardly amusement, to say the least. Still, it is sometimes necessary to thin the rookeries, and then such a proceeding is perfectly excusable. It is better to employ such weapons as will destroy the intended victims without alarming their companions more than necessary.

Some people employ air-guns for this purpose, but I do not think very much of these instruments. The labour of pumping the air into them is rather severe, especially towards the last. Then the valves

are so liable to get out of order, or the trigger-spring in the interior becomes disarranged. And they are rather dangerous beside. I knew a person who nearly lost one of his eyes by the failure of a valve. Again, as the power of the gun varies with each discharge, it is necessary to learn how to graduate the aim by a kind of mental sliding-scale, in order to counter-balance the droop of the bullet. As to the "silently destructive" powers of the weapon, their only existence is in the advertisement, for just in proportion as the charge of air is compressed, so loud is the report of the gun; and if the air could be so tightly compressed as to throw the bullet to the same distance that could be reached by a powder-thrown bullet of the same size, the report of the air-gun would be about as loud as that of the powder-gun.

As far as can be seen, the steel cross-bow is perhaps the best instrument for the destruction of rooks. The aim is much more accurate than that of the air-gun, and the range quite as far. It also carries a larger ball, and as all the discharges are equal in point of strength, or, at all events, as much so as those of a powder-gun, the sights can be set very accurately. The rooks have no idea what a cross-bow is, and can be destroyed in numbers before they suspect the cause.

Some few years ago, there was a very scientific gentleman who lived in a garret that commanded a rookery. Being an observant individual, he had repeatedly noticed the rooks to fall off their perches without any assignable cause, and, after cogitating on the subject, attributed the phenomenon to epilepsy. So he wrote a pamphlet on "ROOKS SUBJECT TO EPILEPSY," and read it before a learned society.

Afterwards the epileptic disease became manifest in the person of an idle student of law, who was accustomed to amuse himself by shooting the rooks with a cross-bow, and whose windows could not be seen from the garret of the philosopher.

My own garret in college had a similar prospect, for the topmost branches of some fine elm-trees overtopped the roof of the opposite side of the quadrangle, and upon those boughs were built numbers of rooks' nests. The wardens have all been very humane respecting the birds that take refuge in the gardens, and in consequence those who walk in the garden are closely surrounded by birds, who know that no danger is to be apprehended there. The rooks are especially under the collegiate protection, and respecting them there is a tale, which is still extant, although I do not vouch for its truth.

It is said that one of the servants had behaved himself very badly, and was in consequence discharged. So, in order to take direful revenge on the authorities, he provided himself with a gun and plenty of ammunition, and having procured the key of the tower, entered it, and locked himself in. He then ascended to the summit, which overhangs as it were the rookery, and blazed away at the birds, until his ammunition was exhausted.

Rook-shooting is usually considered as preliminary to rook-pies, which can hardly be distinguished from pigeon-pies. The young only are used, and they must be skinned before being eaten. But, after all, young crows are just as good, and people have actually eaten crow-pies, believing them to be composed of rooks.

Really, there is a great similarity in the flesh of all birds, as I can state from experience; and, as to the small birds, there is hardly any difference, except in size, between a fieldfare and a lark. Sparrows, too, are capital, but swallows are nasty, reminding one of sweet potatoes. Mice are not to be distinguished from sparrows, and I should not be surprised if a rat and thrush were to prove very much alike when cooked. Every one knows what excellent dishes are compounded from frogs. It all lies in the cooking. There is hardly anything more unpleasant or less

digestible than a half or badly boiled potato, and yet there are few better things when properly managed.

In the well-known tale of the Barmecide, mention is made of a roasted lamb that had been fed on pistachio-nuts. Now, it is very probable that if a turnip-fed lamb had been substituted, the worthy epicure would have been perfectly innocent and content. As a collateral proof, I will mention a small practical joke that was played at college during my residence.

There was a rather obnoxious individual who always *would* make his appearance exactly when he was not required, and always remained for several hours. He had also a knack of coming in by accident just at supper-time. So we determined to retaliate, but could not well discover a neat mode of doing so. However, as we were out snipe-shooting, a flock of starlings came by, and one of them was shot and pocketed. On our return to college, the starling was handed over to the cook, with orders to dress it like a snipe. That functionary rebelled against such a desecration of his art, but was at last persuaded.

As it was well known that snipes were the object of the expedition, it was probable that they would make their appearance at supper. Accordingly, just as supper was brought in, a rapid knock was heard at the door, the obnoxious personage having "dropped in quite by accident" as usual. The host regretted that there were but three snipes cooked, and that those were already partially eaten, but that if he would wait for a few minutes another bird would be brought.

Accordingly, the faithful cook sent in the starling, dressed precisely after the fashion of a snipe, but exhaling an odour that was enough to betray the imposition at any moderate distance. The hot dish was passed to our victim, who took off the

cover, and was going to commence operations, when he was rather struck by the singular appearance of the head.

"I always thought that snipes had long bills," said he, "and this is quite a short one."

"Have you never seen a *Jack-snipe*?" responded the host, with happy presence of mind.

And our stratagem quite failed, for the supposed victim finished the starling, and only regretted that there was not another *Jack-snipe* in the kitchen.

Those agriculturists who object to the presence of rooks on their fields employ many modes of driving them off the land, but very few succeed in their object. Rooks are clever birds, and care no more for a scarecrow than for a milestone. Some farmers try to terrify them by the sight of some of their relations who have been shot, and whom they suspend to posts in various parts of the field. But the rooks do not seem in the least impressed by the spectacle; and trench up the ground carelessly even when close to their slaughtered friends.

But I have been told that there is a mode of frightening even the rooks by the sight of dead birds. When a rook is shot, and the farmer wishes to turn it into a scarecrow, he should not hang it to a stake, but place it *on the ground*, with its wings extended. Rooks appear to be sadly afraid of such an object, at all events for a time, so that the ground is left free from them.

The ordinary scarecrow, comprised of an old hat and coat and two sticks, has not the least effect on the rooks, but there is a far better scarecrow, and one which has the advantage of invisibility to passengers. Pegs are driven into the ground, at several yards' distance from each other, and the string is then passed round the pegs, so as to form a kind of zigzag. This gives the rook an idea that a trap or a net is indicated, and they will not venture within the strings. Stacks can be protected in a similar manner.

Some years ago, the destruction of rooks was contemplated through a rather curious medium—no less than rum. Waste corn was soaked in that spirit, and when thoroughly saturated, thrown about the fields which the rooks frequented. The birds hastened to pick up this unexpected supply as fast as they could, lest others should come to share it, and, as a natural consequence, they became very much intoxicated, and were quite unable to fly in any given direction. I hope that the farmers who adopted that plan were teetotallers, otherwise it was hardly fair behaviour.

Another plan has been successfully attempted, which produces similar effects, without intoxicating the bird. A number of pasteboard extinguisher-shaped caps are made, and the inside smeared with bird-lime. At the bottom of each cap, a grain or two of corn is placed, and the baited caps are then stuck in the ground, their open ends uppermost.

The rooks are soon attracted by the sight of these strange objects; and being very inquisitive birds, come to inspect them. After hopping round the caps at wary distance, and gradually nearing them, the rooks summon up sufficient courage to peep into the hollow cone, and so perceive the tempting bait at the bottom. Down go their heads into the caps, which, being well treated with the bird-lime, adhere firmly to the feathered cranium, when the birds attempt to withdraw their heads after securing the corn.

The rooks endeavour to shake off the cap, which covers the entire head, and therefore precludes them from seeing; and after tumbling about on the ground, try to fly away, hoping to leave the obnoxious head-dress behind them. But they cannot see where they are going, and so, after towering perpendicularly for ten or fifteen feet, come to the ground again on the identical spot from whence they rose. And so they continue to rise and fall until the author of their

misery comes up and puts an end to their troubles and their lives together.

Whether any useful object is attained by the destruction of the rook is quite another question. It is evident that rooks do eat corn; but it is also evident that they eat vast numbers of grubs and worms that are very injurious to vegetable life.

Among the insect pests which rooks destroy, one of the chief is the larva of the common cockchaffer, a creature that is seldom seen, because it lives underground, but does none the less mischief for its subterranean life. Indeed, if possible, it does even more damage than the caterpillars, that feed on the leaves; for it eats the roots, which are the very life of the plant. Three larval years are passed below the ground by this insatiable devourer; in the fourth it becomes a perfect cockchaffer, and then eats leaves. I have seen many trees entirely denuded of leaves by the cockchaffers; and one, about five or six miles from Dieppe, where hardly a green twig was left on the branches. And in the larval state they are so numerous that they have been measured by the bushel. Whole grass fields have been totally destroyed by them, as many as two hundred and ten grubs having been taken from one square foot of turf, or rather from a square foot of earth and withered leaves, which ought to have been turf. And in many cases the roots have been so cut away by the shear-like jaws of these greedy creatures, that the grass could be lifted by hand and rolled up like turf after the spade has been passed under it. And in very many cases, where rooks and other birds are seen pulling up the grass, and tossing away the roots, they are performing a valuable service, in destroying the grubs that would otherwise render the entire field desolate.

So, let me once more repeat, weigh acknowledged services against dubious injuries, and don't kill the rooks.

These birds are gifted with a wonderful and most useful faculty—that of knowing whether a tree is fit for them to build upon. Sometimes an apparently fine tree is deserted by the rooks after they have been in the habit of building upon its branches for many successive years; or sometimes a tree is entirely passed over by them, even though it should be among many others that are well stocked with nests. And in either of these cases, the tree is found to have some internal defect, and often is laid prostrate by the first high wind that takes place after its desertion.

There must be both instinct and reason in this faculty, because, although, if a tree were in bad health, the rooks might discover its sickness from the ill-condition of the leaves or bark, yet there have been instances where they could only have been directed by reason, and that of no mean order.

Some trees had been doomed to the axe, and the usual mark for felling was placed upon them. One of the trees was felled, whereupon the rooks deserted every tree on which the fatal mark was to be found. Now this action must have been prompted by observation and reason combined; for no instinct could have taught the birds that a dab of whitewash was preparatory to the downfall of a tree.

Rooks are very curious birds in their nidification; and seem to have a code of laws among themselves, which laws are of a highly penal nature, and are executed with a rapidity and decision worthy of Judge Lynch himself, save and except that where that eminent justice punishes by adding feathers, the rooks punish by taking feathers away.

I suppose that human beings consider the piceoplumean vesture, as Sydney Smith happily terms it, ignominious, because they do not possess feathers naturally; and that ornithine beings, who naturally wear feathers, feel the deprivation of them to be an indignity. Similarly, the inhabitants of one part of the world despise a man who does not wear a copious

beard, while those inhabiting other lands think that beards are disgusting and contemptible. And it is well known, that in one district any individual who is not furnished with a huge wen upon his neck is quite out of fashion, and as such is exposed to the derision and scorn of those more favoured by nature.

In spite of their laws the rooks are sad sinners, and need all the legal restraints that can be laid upon them. Thieving is one of their most prominent propensities, and against that crime their laws are deservedly severe. Nest-making is rather a laborious occupation, and in most cases the sticks and other materials can only be procured by dint of sharp eyes and powerful wings, so that lazy birds will endeavour to procure materials by taking advantage of the labours of their friends and robbing their nests.

It often happens that when two inexperienced rooks begin to nidificate, they are so charmed with their work, and so anxious for the completion of their dwelling, that they soon gather a large supply of materials by their united endeavours, and their nest makes rapid progress. But just as they have nearly finished the nest, and are both searching for the substances necessary for its completion, the other rooks pounce upon the unprotected nest, pull it to pieces, and weave the fragments into their own domiciles, so that when the young couple return with their beaks full of sticks, they find all their labour lost, and no possibility of redress.

So they make the best of the business, and, after getting over the disappointment, begin another nest. But this time they only go out alternately; and while one is searching for materials, the other is sitting at home on the watch.

Now it seems very remarkable that the rooks should commit a crime as a community, while they punish, with great severity, that very same crime in an individual. Yet they do so, as will be seen.

In a certain rookery the business of nest-making

was proceeding and the rooks hard at work. But among their number was an idle gentleman who had lately married a lazy wife, and who very cordially disliked the trouble of searching for nest-materials. So he and his wife were accustomed to watch the other nest-builders, and to steal their sticks and straws, as they thought, unobserved. But rooks are very sharp-sighted creatures; and if they pretended not to see these constant thefts, only did so in order to bring down more condign vengeance upon the delinquents. In the meanwhile the lazy pair were getting on capitally with their nest, and doubtlessly chuckled inwardly at their poor plodding neighbours, who did all the work, while they swung luxuriously in the breeze.

But the day of retaliation, although long delayed, came at last; for just as the nest was completed, the injured rooks precipitated themselves on the guilty pair, tore their nest in pieces, and, after buffeting them to their hearts' content, drove them away in disgrace, and banished them from the community.

There is a moral in the story, which I need hardly point out, as also an analogy, which is not quite so evident.

Every one of these virtuously indignant rooks was at heart just as much a thief as those whom he punished, and had probably joined in many a razzia on unprotected nests, and built his nest with the stolen materials, as has been above related. But it seems that rooks and men, when formed into "boards," or "committees," or "societies," have no compunction in performing actions which each member, as an individual, would feel derogatory to his self-respect, or contrary to his conscience.

Another curious law prevails among rooks. They have a habit of associating upon contiguous trees, and will continue to build on the same branches for many successive years. And they are so tenacious of this custom, that if one of their society wishes for a quieter or more solitary residence, and begins to

build a nest on a tree at any distance from their aerial camp, they pull the nest to pieces, and compel the builder to make his next house upon one of the trees which they have chosen. It is a curious instance of social tyranny among birds.

The colour of the rook is black; or rather, the tint of the plumage is so very deep, that it conveys to the eye the idea of black, as does the ink called black, which is really purple, as may be seen by dropping a little ink into a glass of water. But there are white and piebald varieties of the rook, the cause of which change of tint is satisfactorily ascertained to be weakness.

A white rook was once caught, and kept as a curiosity. But when the bird moulted, the renewed plumage was just like that of any other rook. It is probable that the bird had been supplied with better food in captivity than in its wild state, and so was rendered sufficiently strong to furnish the colouring matter necessary for the proper tint of the plumage. There is an analogy here with the white hair of age.

CHAPTER XVIII.

CROWS.

Crows and Rooks generally confounded together.—Crows' Eggs.
—Position of Nest.—A Crafty Crow.—The Eggs of the
Crow edible.—Egg-feasts.—“The Crow! the Crow!”

THE great general resemblance that exists between the rook and the crow causes much confusion in narrative. Very many anecdotes are in existence, stated to relate to the crows; but as in most cases the word “crow” seems to be indifferently used to represent both crows and rooks, I have not made use of them.

Yet the birds are so different in details, although similar in general appearance, that it is surprising that any observer should confound them together. There is really as wide a distinction in the external aspect of the birds themselves, as in the shape and colour of their eggs.

Great temptations to boys are these same eggs, for although not scarce, yet their possession implies an agile body and a steady head on the part of the proprietor. The crow is as clever a bird as any of his corvine relations, and displays much ingenuity in the position of his nest. If there should be any very tall, very smooth-barked, very inaccessible tree, there the crow's nest is tolerably sure to be found. It is a bold, big nest, without the least attempt at concealment, and seems rather to challenge observation than elude it.

This challenge has a powerful effect on boy-nerves, and sometimes on man-nerves too, for even now I can never see a great flaunting rook's nest, blazing

impudently from the top of a tree without an insane impulse to pillage it. But that miserable word "propriety" is as an iron chain, and I can but look wistfully at the nest, without venturing to climb the tree. Even to be able to peep into the nest, and only see the eggs, would be a relief.

Many crows' eggs have I given away, many have I eaten, and there still remain five, as reminiscences of trees climbed, and nests ransacked.

There were few trees that could protect a nest in those days, for only once do I remember a tree that entirely baffled me. And, to add to the disappointment, the horrid nest was not above sixty feet or so from the ground. It was the craftiest piece of nest-building that I have yet seen, for the tree was a young oak, that had been originally in the midst of a plantation, and had consequently shot up to a great height without adding much to its diameter.

There was also a slight bend in the trunk, so that it was slightly out of the perpendicular, and that slope saved the nest. It was an easy tree to climb, but at the height of forty feet or so, the trunk was so slender that it began to bend, and, not being perpendicular, no amount of care would prevent it from bending.

At the very top of this tree the nest was perched, and though I several times ascended quite close to the nest, the tree bent and swayed about so fearfully, that further progress was impossible. Indeed, a very little more sway would have been required to make the eggs roll out of the nest. That oak ought to have been ashamed of itself, for it was much more like a poplar than an oak of even respectable appearance.

I have mentioned eating the eggs, which may surprise those who can think of crows as "carrion-crows." As to the carrion, there is very little of that article for them, while, as to their value in a culinary point of view, I can assure my readers that they are

quite as good as rooks. Crow-pie cannot be distinguished from rook-pie, or even from pigeon-pie, while crow eggs are fully equal to those of the barn-door fowl, although they are smaller in size.

We used to have great egg-feasts in my younger days, by receiving the contents of our daily egg-harvest into a vessel, and boiling them in the usual way. Next to the eggs of the plover, those of the black-bird and thrush were our favourites, but the rook and crow were not far behind in our estimation.

"The crow ! the crow ! the great black crow !

He cares not to meet us, wherever we go ;

He cares not for man, beast, friend, nor foe—

For nothing will eat him he well doth know.

Know—know ! you great black crow !

It's a comfort to feel like a great black crow.

"The crow ! the crow ! the great black crow !

He loves the fat meadow—his taste is low ;

He loves the fat worms, and he dines in a row,

With fifty fine cousins, all black as a sloe.

Sloe—sloe ! you great black crow !

But it's jolly to fare like a great black crow.

"The crow ! the crow ! the great black crow !

He never gets drunk on the rain or snow ;

He never gets drunk—but he never says no,

If you press him to tipples ever so.

So—so ! you great black crow ;

It's an honour to soak like a great black crow.

"The crow ! the crow ! the great black crow !

He lives for a hundred years and mo' ;

He lives till he dies, and he dies as slow

As the morning mists down the hill that go.

Go—go ! you great black crow !

But it's fine to live and die like a great black crow."

From "FESTUS."

CHAPTER XIX.

SHRIKES.

Analogies.—The Shrike-Man.—The Cinereous Shrike.—Its similarity to the Mocking-Bird.—Curious Habit.—The Law of Retaliation.—The Cinereous Shrike employed in catching Falcons.—Its Powers of Imitation.—Its Mode of destroying its Prey.—Used in Falconry.—The Matagasse.—Nest found in England.—Systems of Ornithology.—Fero-city of a Shrike.—Red-backed Shrike.—Its Nest and Food.

As has been already mentioned, there is a striking analogy between men and brutes, their characters being, as it were, interchangeable, various characters of men being designated by corresponding characters in the lower animals, and *vice versâ*.

Thus we speak of a "lion-hearted" man, of a "human harpy," of an "aquiline" nose; we designate a knave as a "rook," and his victim as a "pigeon." An ill-mannered man we call a "bear," and ladies call an agreeable man a "dear."

Sometimes the analogy holds good either way, as is exemplified by seamen in general, who term a lawyer a "land-shark," and contrariwise speak of a shark as a "sea-lawyer." As to such terms as "ass," "goose," or "gull," when applied to mankind, I make no mention of them, because the three creatures selected as instances of stupidity happen to be peculiarly clever.

But where shall we find any analogue to the shrike? I know of none, excepting a fictitious character, Ralph Nickleby, to wit, who I hope is fictitious entirely.

The Eagle-man towers above his fellow-creatures,

tyrannizes over them, despises them, and, finally, eats them; but all in so imperial a manner, and with such a majestic presence, that even the victims themselves admire and revere.

The Falcon-man is a shade below the eagle. Where the eagle is the emperor, the falcon is the marshal, and there are generous or rapacious falcons and men. Then the hawks are the generals, and the same remarks apply to them also.

And so we proceed through the various rapacious birds, until we come to the shrikes, who are the most bloodthirsty and ruthless of the tribe, for they not only kill, but impale. The shrike is worse than the American-Indians, for they only tear off the scalps of their victims, whereas the shrike impales them bodily, watching their carcasses blackening and putrifying in the sun before he is satisfied.

There are several species of shrikes, the most prominent of which is the great grey shrike, or the cinereous shrike, as it is sometimes called. This bird inhabits England, but is not nearly so common as the red-backed shrike. In other lands, however, it is an extremely common bird, especially so in many parts of America. Its plumage is rather peculiar in tint, and there is a peculiarity about it that I will not describe, but can show more perfectly by placing before the reader one of the juvenile exploits of a *real* naturalist, to whom I have already referred. Any one accustomed to the style, will recognize Webber's spirited pen in the following passages.

"As yet I had never obtained a near view of a mocking-bird, much as I worshipped the creature; and as to finding a nest, mine was the luck of all the rest of the would-be robbers.

"But perseverance has its reward. One day I had paused near the 'sinkhole spring,' to hear my favourite mocker sing by daylight, for variety, when, instead of a song, I saw—what? A splendid pair of

mocking-birds disporting themselves gaily along the fences and in the grass of the very slip of meadow in the corner of which I made my usual nightly couch!

"I drew a long breath. What a discovery! How tame they are! It must be some mysterious sympathy! The male must be that magnificent bird I have listened to so many nights with rapture, and never seen!

"Hah! these have a black mark under the eye; the southern bird, I remember, has not that mark in the plates of it that I have seen. This must be a new variety! I have heard my uncle and father, who have been to New Orleans, describe the southern bird. It certainly has no such mark as this, which resembles that under the eye of the red bird, and, from what they have told me of its singing, it cannot be near equal to this glorious creature. My mother, though, has described the bird in northern Kentucky, where she knew it, and, from what she has told me, this must be the very one. It must be this same wonderful bird I have been listening to!

"Oh, how happy I was! I crouched down beside the fence, for fear I might chance to startle them, and gazed in eager, anxious admiration. What a handsome bird! It seems rather shorter, though, than I expected from the appearance of those at a distance; and there is the white bar across the wings. But, somehow or other, the wings do not seem so wide, nor the stripe so broad; its neck, too, disappoints me; it appears much shorter and thicker than I supposed. But that's easily enough to be accounted for in the fact that it must require a very powerful neck to emit such loud sounds. But it is a lovely bird, with that light grey plumage so delicately marked on the breast, and looks so warlike, with the black mark under its eye! Ah! I see its bill is very hooked! it gives it quite the appearance of a little hawk! How happy was I!

"Look! look! They fly towards that great black

oak, over the spring! As I live! there's a nest there! I hear the cry of the young ones! Strange place for mocking-birds to build in, according to accounts. But this is a new variety; they, no doubt, prefer large trees.

"The mate now flew to the same cluster of scrubby twigs, or small limbs, that grow out from a diseased portion of the trunk, that formed a large knot, bristling 'like quills upon a fretful porcupine.' She lit in the bosom of this ugly excrescence, and, as I again heard the cries of the young, I sprang from my place of concealment—with my heart in my throat—leaped the fence, ran at full speed to the tree, stripped off my coat and shoes, and, before I knew what I was doing, had ascended, as nimbly as a squirrel, the trunk of a tree that I would not have attempted to climb for a fortune under other circumstances.

"It is well that I did not stop to think, or I should never have reached the limbs. As it was, now that I found myself up, the difficulty of getting at the nest seemed as great as ever. The small limbs that bristled out from the great excrescence were as tough as they could be, and how I was to drag my body over them so as to reach the nest, was the question; but when, by rising on tip-toe, I could peep over the edges of the nest, and see the heads and bright eyes of four lusty young birds, I literally tore my way through all obstructions, and with eager hands grasped at my treasure. I seized three, and the fourth sprang out in time to elude me, and sailed down.

"Just at this moment I saw my old friend B. approaching, to see what I could be at. I shrieked out to him in my tribulation! for the little wretches had bitten my hand so severely that the pain and imminent danger of falling combined, had compelled me to let them go, and save my neck.

"My mocking-birds! Catch my mocking-birds,

Mr. B. ! Oh ! I wouldn't lose them for the world ! Catch them ! catch them !'

"I shrieked in my agony—for I had got myself hung upon that knot by the remaining rags of my clothes, and the dread of losing my birds was even greater than that of breaking my neck.

"The old gentleman, heartily sympathizing with me, sprung to the work right briskly, and, although they compelled him to let them go several times by the severity of their bites, yet he finally succeeded in capturing three, which were fastened down under my hat.

"During the chase, I heard several very droll exclamations from him, which gave me a decidedly contemptible opinion of his attainments as a naturalist. As he shook one of the fierce little wretches off—that had fastened upon his finger when he tried to seize it—he cried out, with an exclamation of pain and surprise—

"Ough ! Young mocking-birds didn't bite that fashion in old Virginia, my boy ! Don't like that black spot under the eye ! They do look mightily like mocking-birds, too ! How they do squall ! Why, they're as strong as young wild cats, and as fierce, too ! There ! there ! that's one gone !'

"Gone where !' I gasped, as I descended the tree with a speed which seemed much more like falling than climbing down, and completed the demolition of my forlorn inexpressibles.

"He ran under these rocks, and you'll never get him again, I'm afraid.'

"Never get him ?' and I almost burst into tears at the thought of losing one of my precious new variety. The spring came from under a sort of cave, and there were loose piles of stones, intended once for walls, on each side of the basin. Into these the sunning youngster had crawled, and was far enough beyond our reach.

"I consoled myself by heaping stones so as to

prevent its escape, and determined to go home and secure the prize in hand, and then return with a negro man to dig this one out for me. This was not my only annoyance; for the old gentleman kept intimating as we walked on towards my father's, that these were 'mighty strange sort of mocking-birds,' until my insulted dignity as a naturalist and discoverer fairly blazed out in wrath, as I remarked, in a most emphatic manner,—

“Mr. B., I repeat to you, sir, that this is a new variety of mocking-birds! When you have spent as many nights as I have, sir, in ascertaining the fact—when you have heard the male parent sing as many hours as I have, while you were sound asleep, then you, too, will be convinced that I have not only discovered a new variety, but that I have now in my possession a nest of the finest singers in the world!’

“This long speech, with all its emphasis, did not seem to entirely convince the old man, who could not get over the way they bit, and that black spot under the eye; but I saw it staggered him some, and when, as we were parting, he rather hinted that he should like to have a male bird if they turned out as I expected, I turned upon him quite a compassionate look, as I promised smilingly,—

“Of course—in case they turn out to be mocking-birds, Mr. B., you shall have one of the males if I have two.’

“This was my grand triumph, and I was proud as Lucifer when I exhibited my captives to the family; and great were the rejoicings of my sisters over my brilliant success. But the triumph was incomplete while one of the precious family remained behind, and soon I was on my return, accompanied by a strong negro man to dig the runaway out of the rocks. It was a work of several hours, and during its progress I observed something curious on one of the thorn-bushes near, that had died the year

before, though the thorns were as stiff and tough as ever. This phenomenon consisted of the bodies of some dozen of the common grey or fence lizard, which had been impaled carefully upon the topmost thorns.

“They seemed in all stages of demolishment and decay, from the entire reptile, that was bleeding and scarcely cold, to the mere blackened fragment that had been eaten away close up to the thorn on which it was spitted, and now seemed ready to drop to pieces at a touch. It struck me at first that some stupid boys must have been amusing themselves in torturing the lizards, but then I saw that those thorns could not be reached from below, and it was evident that some creature was eating them gradually.

“This recalled dimly to my recollection an anecdote I had heard somewhere of a bird that was in the habit of impaling lizards in this way, that they might become decomposed somewhat by the action of the sun, to prepare for being eaten; but, as I could not recall the name of the bird just then, I, somewhat hastily, dismissed the subject from my mind for the time; I know not for what reason, but because it somehow made me feel uncomfortable.

“The runaway was reached at last, and I now returned, as proud of the success of my perseverance and enterprise, as of the birds themselves, and my new discovery. The first person I met when I reached home was my sister, who ran to me, exclaiming,—

“‘Brother! you never did see creatures eat like our little birds! they do nothing but eat, eat, eat all the time. I never knew before that mocking-birds were so greedy—and then they bite me so!’

“I smiled benignantly, as became a youthful Cuvier, and, holding out to her the new one, said, patronizingly,—

“Look here! He could not escape *me*; although this new variety *have* the cunning of wizards! Never mind the appetite, Sis; we shall be the more certain to raise them, and their magnificent song shall repay us for a little additional trouble.’

“But Sis was not so easily comforted, for she said, as she showed me some ugly marks where they had been biting her little fingers severely,—

“‘Well, brother, I hope you will not find any more of your new variety, for I expect to have my fingers eaten off by these that you have. They are not content with snatching down everything I can find to give, but have been trying to bite off the fingers that fed them.’

“‘I am sorry for your fingers, dear, and you must let me feed them hereafter; but I like their appetite and their spirit—they should have both to sing as they are going to sing.’

“‘Well, brother, have it your own way; but I don’t believe in making an angel out of a glutton!’

“This last remark rather stung me, for, somehow or other, since the discovery of the impaled lizards I had been feeling uncomfortable. I went to the cage, and they received me with clamorous cries for more! I immediately got for them a quantity of food, such as I had supposed to be best for them, from what I had read and heard of their habits. I found, to my astonishment, that they would eat nothing but earthworms and fresh meat—farinaceous food they rejected with disdain—and certainly gulped down as much as their own weight every few hours.

“The thing was becoming more inexplicable, and, what made matters still worse, my sister, for the first time in her life, refused to share my cares with me. She had taken a most unconquerable dislike to the creatures; declared she was absolutely afraid of them, and shuddered when they were brought near her.

“This reception of my new variety mortified me

excessively, but I consoled myself that I was doomed to the common martyrdom of discoverers, and nursed my uncouth and boisterous pets with even greater assiduity that they were rejected of men.

"I now let them run about the yard; for I soon found that the ravin in their maws constituted a sufficient parole of honour to insure their return to where food was to be obtained; but one morning I witnessed a trick of one of my vagabonds that considerably stunned me.

"He had straggled around to the back of the house, and got into the poultry-yard. I saw him march very deliberately up to a brood of young chickens, and, without saying 'by your leave,' to anybody, he pounced upon one in the most savage fashion, and would have killed it in an instant, but that the old hen rushed to the rescue, with a blow that sent the young robber several feet distant.

"The indignant mother followed up the attack, and I was about to interfere, when, to my surprise, the young wretch, with all his feathers bristling like a little hedgehog, threw himself upon his back, and awaited the onset with open mouth and fierce eyes. The hen struck at him with her beak, and quick as lightning he clutched her head with his claws, and the astonished hen ran squalling off, shaking her head in agony, to get rid of this new sort of head-gear. When she had shaken him off, she ran away in a great fright, and he strutted around with a most conscious air.

" 'Well,' muttered I 'this is getting to be something of a joke; my new variety seems to have more of the hawk than the song-bird in it! I never heard of mocking-birds killing young chickens or whipping old hens before! Rather a warlike variety of song-bird, this new one of mine! I must look over my books, and see something about that lizard story.'

"That lizard story had always haunted me, though

I had not been able to summon courage to look it up. Just at this moment, my sister, who had witnessed the little scene above, and heard a part of my muttered soliloquy, from a window close at hand, burst into a ringing laugh, and, as I looked up, disappeared.

“In a moment she came bounding down the steps to meet me, with a small book in her hand, which I recognised with a foreboding thrill before she reached me. It was a small school edition of selections from ornithology, with woodcut illustrations. She held her hand on the page to cover something, while she read, as well as she could for laughter, Wilson’s version of the lizard story, and when she got through, removed her hand suddenly from the cut; and though it was remarkably rudely done, I instantly recognised in my new variety—‘The Butcher-bird!’ *Exeunt Omnes*—screaming with laughter.”

There are three species of shrikes inhabiting England, namely, the great grey shrike, the red-backed shrike, and the woodstake shrike. Of these, however, I have only seen the red-backed, or, at all events, have only recognised that bird, although it is possible that the grey shrike may have crossed my path. We will at present look to the grey shrike, which is the largest of the three.

The name of Butcher-bird is often given to the shrikes from their peculiar custom of disposing of their prey. After killing it, whether it be bird or insect, they usually impale it on a thorn, and then leave it for some days before they eat it.

They have been known to carry this habit into a domesticated state, for when one of these birds was placed in a cage, he was accustomed to fix his food on a sharp piece of stick that was inserted into his cage. No one seems to be aware of the object of this curious custom, for the reasons that are given by some writers appear to be quite erroneous, as will be seen when

we come to speak of the red-backed shrike. Suffice it here to say, that the custom exists.

Singularly enough, this bird might parody for itself the sentiment of Sir John Falstaff, that he was not only witty in himself, but the cause of wit in others, and might say that he was not only a bully himself, but was also bullied by others. The Shrike seems to detest the nobler birds of prey, and, being as bold as he is bloodthirsty, attacks eagles, hawks, and owls most courageously. Then, the law of retaliation takes effect upon himself, for the little birds are quite as ready to mob and persecute the shrike.

Where the pocket is concerned, men are marvelously ingenious in seizing upon the instincts of the lower animals and turning them to their own profit. Such a bird as the shrike could hardly escape their observation, and, accordingly we find that the keen perception, and intense hatred that the bird exhibits towards the falcon tribe, are used by the fowlers when they are engaged in hawk-catching.

And the mode employed is as follows.

A hut is built, in which sits the fowler, and outside the hut are placed some pigeons, as a bait, the net being arranged in such a manner that when the hawk dashes at the pigeons, the net is drawn over him, and he is captured. From the net a long string leads into the hut, and it is by a sudden jerk of the string that the net is drawn.

In order that the attention of the hawk may be directed to the pigeons, it is necessary that there should be some means of making them flutter their wings when a hawk comes in sight. Another string is, therefore, so arranged, that when it is pulled, the pigeons are thrown off their balance, and are consequently forced to flap their wings in order to regain it.

Now, the fowler would find himself condemned to a very severe task, if he were forced to keep his eyes always wandering over the sky; and even if he could do so, he would probably permit many a hawk to pass

by without seeing it. So he looks for an assistant who has better eyes for a hawk than himself, and this assistant he finds in the shrike.

In order to give the bird the best opportunities of exhibiting his powers, the fowler raises a small turf hillock, and having driven a wooden peg into the hillock, to that peg he attaches the shrike by a string. Within the length of the string he builds a tiny hut, a place of refuge for the bird, composed of two or three pieces of turf laid upon each other, something like a Druidical monument.

Having taken these precautions, the fowler busies himself about some sedentary occupation in his hut, knowing that the shrike will give him notice of a hawk, when it even only appears as a black speck in the sky.

When a hawk is seen, the shrike ruffles up his feathers, and looks earnestly in the direction of the obnoxious bird. This is a signal for the fowler, who straightway pulls the bait-string, which sets the pigeons in a flutter, and seldom fails of attracting the attention of the hawk. As he approaches, the shrike becomes more and more agitated, and just as the hawk comes overhead, fairly dives into his house. The fowler knows the meaning of that movement, and, taking the net-string in his hand, is ready to pull it immediately upon the entrance of the hawk within the scope of the net.

So sharp-sighted is the shrike, and so expressive are his movements, that an experienced fowler can tell what kind of hawk is near, merely from the behaviour of the shrike. For kites and buzzards he does not much care, but a falcon terrifies him, and if the goshawk should come by, he not only exhibits extraordinary fear, but screams with terror, and tries to break away from his bondage, for he knows that, although his turf-house will defend him from ordinary hawks, the goshawk would pull him out in a very short time.

This ingenious mode of fowling is practised in

many counties, and the modes of arranging the baits and the watchman shrike vary according to the locality.

It is from this custom that the grey shrike is called 'excubitor,' a name that signifies a sentinel or a watchman.

The shrikes, although they partake much of the nature of the predaceous birds, are yet endowed with some musical abilities. Their power of song is not very great, but the notes are soft and sweet. And, curiously enough, not only does the grey shrike imitate the mocking-bird in plumage, as we have already seen, but possesses also some of its imitative faculties.

Of this remarkable fact we are told by many naturalists who have had opportunities of watching both birds in their native haunts, and among them, or rather chief of them, is Audubon, who speaks of their imitative power in the following words:—

"This valiant little warrior possesses the faculty of imitating the notes of other birds, especially such as are indicative of pain. Thus it will often mimic the cries of sparrows and other small birds, so as to make you believe you hear them screaming in the claws of a hawk; and I strongly suspect this is done for the purpose of inducing others to come out from their coverts to the rescue of their suffering brethren.

On several occasions I have seen it in the act of screaming in this manner, when it would suddenly dart from its perch into a thicket, from which there would immediately issue the real cries of a bird on which it had seized.

"On the banks of the Mississippi, I saw one which for several days in succession had regularly taken its stand on the top of a tall tree, where it from time to time imitated the cries of the swamp and song-sparrows, and shortly afterwards would pitch down like a hawk, with its wings close to its body, seldom failing to obtain the object of its pursuit, which it

would sometimes follow even through the briars and brambles among which it had sought refuge.

“When unable to secure its prey, it would reascend to its perch, and emit loud and discordant notes of anger. Whenever I could see it strike its victim, it appeared to alight on its back, and instantly strike its head, which on such occasions I have several times found torn open. If not disturbed, the shrike would then tear up the body, and swallow in large pieces, not well cleaned of the feathers, every part excepting the wings.

“It now and then pursues birds that are on the wing to a considerable distance. Thus I saw one follow a turtle-dove, which, on being nearly caught, pitched on the ground, when its skull was bruised in a moment; but the next instant both birds were in my possession.”

Both the mocking-bird and the shrike are fond of deluding the smaller birds, but for different objects. The mocking-bird merely delights in playing off practical jokes, while the shrike is in real earnest. Still, the little birds hate to be deceived, and therefore detest both mocker and shrike with nearly equal energy.

The mode by which the shrike slays the unfortunate bird which it catches is generally by seizing it by the throat and so strangling it. And the force which it must employ is not trifling, for it is no easy matter to strangle even a sparrow, owing to the great powers of respiration which are possessed by all birds. The attack on the head appears to immediately follow that on the throat.

I have already related one mode of using the shrike in fowling, namely, for the purpose of catching hawks, but it appears from an old work on field sports that it has been used as a hawk for the purpose of catching small birds.

Before quoting the passage to which I refer, I will mention one or two of the titles by which this bird

has been called, because, as it is mentioned by a rather curious name, it is necessary to be sure that the name refers to the shrike.

In some parts of England it bears the name of the mountain pie, or the murdering pie, because, judging merely by the contrasts of light and shade in its plumage, it presents at a distance something of a pied aspect. In some parts of Germany it is called the neuntoder or ninekiller, because it was supposed to kill nine birds every day, while in other parts of the same country it is named the "suffocating angel." Many German words still exist, either intact or corrupted, in the patois of our rural districts, and so in Yorkshire, we find that the bird goes by the title of "were-angel," which is evidently a corruption from the German. The falconers of the middle-ages termed the grey shrike the "mattagess," or "mattagass," and it is by this name that the bird is mentioned.

"Though the matagasse bee a hauke of none account or price, neyther with us in any use; yet neverthesse, for that in my division I made recitall of her name, according to the French author from whence I collected sundries of these points and documents appertaining to falconrie, I think it not beside my purpose briefly heere to describe unto you, though I must needs confesse that where the hauke is of so slender value, the definition, or rather description of her nature and name, must be thought of no great regard. Her feeding is upon rattes, squirrells, and lizards, and sometime upon certaine birds she doth use to prey, whome she doth intrappe and deceive by flight, for this is her devise.

"She will stand at pearche upon some tree or poste, and there make an exceeding lamentable crye and exclamation, such as birdes are wont to doe being wronged or in hazard of mischief, and all to make other foules believe and thinke that she is very much distressed and standes needeful of ayde; whereupon

the credulous sellie birdes doe flocke together presently at her call and voice, at what time, if any happen to be neare her, she out of hand ceazeth on them, and devoureth them, (ungratefull subtill foule !) in requital of their simplicity and pains.

“These haukes are in no accompt with us, but poor simple fellowes and peasants sometime doe make them to the fiste, and being reclaimed after their unskilful manner, doe bear them hooded, as falconers doe their other kind of haukes, whom they make to greater purposes.

“Heere I end of this hauke, because I wishe accompt to be worthy the name of a hauke, in whom there resteth no valour or hardiness, or yet deserves to have any more written of her propertie and nature more than she was in mine author (Francesco Sforzino Vyncentino), specified as a member of my division, and there repeated in this number of long-winged haukes.

“For truly it is not the property of any other hauke, by such devise and cowardly will to come by their prey, but they love to winne it by main force of winges at random, as the round-winged haukes doe, or by free stooping, as the haukes of the tower doe most commonly use, as the falcon, gerfalcon, sacre, merlyn, and such like, which doe lie upon their wing, roving in the ayre, and ruffe the foule, or kill it at the encounter.”

The great grey shrike is said not to breed in this country, but I have certainly seen eggs which their owner told me were taken from nests found in England. And he is a very careful ornithologist, possessing a remarkably complete cabinet of the eggs of British birds, admitting none but genuine British specimens without marking them as foreign. And a gentleman who searched after their nests found six within a line of five miles in length. However, I have not been so successful, never having seen a single nest.

This shrike does not confine itself in the matter of food to little birds, but will pounce upon, kill, and

devour mice, which it does not attempt to swallow whole like the owls, but tears them in pieces. In America it has been seen to sit for hours together on a fence near a rice stack, watching for the mice just like a cat, and seizing them as readily.

Insects of all kinds form part of its food, for it has a most accommodating appetite, and an enviable power of making itself comfortable under any circumstances. It prefers hedge-sparrows, linnets, or other little birds; but if it cannot find them, or if they are too shy, it will make itself happy with a mouse, or, failing mice, contents itself with grasshoppers or beetles, and is not above spiders.

There are many species of shrikes in the world—so many, indeed, that the systematic naturalists have been sadly perplexed to find their correct position in the chain of animated nature. So the poor shrikes are insulted by division into families and sub-families with wonderful names, and are bandied about from one system to another like one shuttlecock among a dozen battledores, or one mouse among as many cats.

One naturalist pounces on the bill, and straightway drags the shrikes into his Rostral system; another seizes on the legs, and flings them into his Pedal system; a third declares that as they eat birds and mice they ought to be placed among the predaceous tribes; while another lays equal stress upon their habit of feeding on grasshoppers and beetles, and wants them to be inserted in the list of the Muscipidæ or flycatchers. It is fortunate for the peace of mind of the shrikes that they live in ignorance of their own unsettled state.

The great American shrike is a terrible enemy to the small birds, and occasionally to birds much larger than itself. One of these birds suffered much from a very severe winter, and could find no food. Being driven by hunger it entered Boston, and there spied a canary in its cage that was hung in the dining-room of one of the houses. It dashed with all its

force at the canary, and, although the window pane was made of plate-glass, it broke through without injury, and had actually torn the canary out of the cage and killed it before assistance could be rendered to the poor little victim.

As to the red-backed shrike (*Lanius Collurio*) I have seen it often enough, for it is a much commoner bird than is generally imagined. The first time that I saw one I mistook it for a redstart, which bird it much resembles when on the wing, as there is a reddish band on the back which flashes in the sunshine, as the bird flies in a manner closely resembling the redstart. From this circumstance, the rustics often call it the "flasher," or "flusher."

At the time mentioned, I was walking along the hedges searching for nests, when a very loud screaming issued from the bushes at about ten yards' distance, and a redstart, as I thought, flew out of the hedge for some six or seven yards, and then re-entered the bushes. The scream, or rather squall, seemed a very curious performance for a redstart, and I very naturally turned to see what could have occasioned it.

Suddenly I caught sight of a beetle, *Staphylinus erythropterus*, stuck on a thorn. It was rather a singular circumstance, because it is not so common an insect as to be found growing, as it were, on the hedges. A closer inspection showed several more beetles of the same species, several humblebees, and one or two ground beetles, besides other insects. Then the idea of a shrike first occurred to my mind, and the next object seen was the nest itself, laden with its eggs. This was a welcome sight, as I was then able to identify an egg of the same kind which I had found a few days previously, but which no one could name.

Ever after that time there was not the least difficulty in finding the nest of the red-backed shrike, for if either of the parents were at home they always

set up such a clamour that the position of the nest was indicated without further trouble, or if they were both absent the impaled insects were excellent sign-posts.

Some naturalists say that this shrike feeds upon young or small birds. I can only say that I have never seen anything of the kind, nor even a vestige of a dead bird or a mouse, although I have watched many a nest. Insects in abundance are always to be found spitted on the neighbouring thorns, but never a scrap of fur or one single feather betrayed the murder of a mouse or a bird.

Also, it is said that the object of thus impaling these insects is for the purpose of attracting little birds on whom it intends to pounce. But if, as I think, and am supported by several out-door naturalists in thinking, the red-backed shrike does not feed on birds at all, that argument falls to the ground. It may be that the shrike likes its dinner to be slightly toasted in the sun, or possibly this transfixion may be a method of disposing of its surplus prey, just as the magpies hide away their superabundance in corners.

Wilson says on this subject that we might as well imagine the farmer to desire to attract other crows to his fields by hanging up those which he has shot, as that the shrike wishes to attract other victims when treating his prey in a similar manner

CHAPTER XX.

CANARIES.

Why a Coat was hung up.—Introduction of the Canary into England.—History of my Canaries.—Antiqua and Nova.—Their Cage and its Construction.—My wicked Cat.—Sad Fate of Antiqua, and danger of Nova.—How to prevent a Cat from killing Birds.—Pussy's Memory.—His Dignity.—Nova injured.—Her Recovery.—Nova on a Journey.

A FEW weeks since, an old college friend called upon me, and, taking off his over-coat, laid it over the back of a chair on which a coat of my own was hanging. We began to talk about olden times, and after a while I took both coats off the chair, and hung them up. Now, as authors, and especially those who write on natural history, suffer many rebukes from the female world on account of their general untidiness, especially as exemplified in their arrangement of books and papers, I here pause, in the hope that every lady who reads these lines will afford me the unaccustomed praise of being "tidy for once."

Must I also say undeserved praise? Such, alas! is the case, for the cause of these coats being hung up, proceeded—not from the fairy Order, but from a shipwreck that occurred about four hundred years ago.

It may seem strange that two events so dissimilar in point of value, and so widely apart in point of time, should have any connecting links between them, but that such is the case I shall now show. Between the years 1400 and 1500 A.D., a ship was sailing to Leghorn, having for part of her cargo a

number of little birds of a dark green colour, very lively and very musical. These birds, having been caught in the Canary Islands, were called, from their country, Canary-birds.

Now, as this ship was proceeding on her voyage, she was unfortunately wrecked, not far from the island of Elba, and her winged passengers, making the best use of their wings, flew over to the island, where they soon attracted the attention of so music-loving a nation as the Italians, who contrived to catch every bird, and brought them over to the Continent.

From Italy they soon spread into other countries, especially into Germany and the Tyrol, and from thence into England, where, in process of time, they became the ancestors of eight canaries that inhabit one very large cage in my room.

It so happened that, as my friend and myself were conversing, the canaries thought themselves bound to follow our example, and being possessed of much louder voices than the two *bipedes implumes*, and some four or five choosing to sing at the same time, they soon silenced us, and compelled us to darken their cage with the first covers that came to hand, in order to hear ourselves speak.

The two coats were convenient for the purpose, and that is the reason why those coats were hung up.

Amusing little creatures they are, and very pleasant to have in the room, except in such a case as has been mentioned; for there are eight of them, and each has its own peculiar temper, disposition, and habits, just as if they were so many human beings.

Of my present stock of birds, the aborigines were two, one a very pale, close-feathered bird, and the other a jonque, with rather rough plumage. The pale bird was given to me a week or two before its companion, and therefore arose a difficulty about names.

At first, we were content to speak of the bird as "Dickey," but when a second was placed in the cage, it was necessary to distinguish them, especially as the sex of both was the same, and, therefore, pronominal distinction was impossible. Finding that they were generally spoken of in the family as "the new canary" and "the old canary," I just Latinized the adjectives, and called one "Nova," and the other "Antiqua." These, with a goldfinch, formed the nucleus of the present colony.

I never could endure the idea of shutting up a bird in a little cage, where it can neither use its wings nor even hop more than an inch or two without striking its head against the roof, or scrubbing off its tail against the wires, and so hastily knocked up a temporary cage out of an old tea-chest, in which to keep my birds until I could procure them a habitation more suitable to their tastes and my fancy. On inquiry at the manufacturer's, the charge for even a moderate-sized cage was so high, that I determined to set about one myself, and, after some consideration and much labour, produced the residence which I shall now describe.

The measurement is, roughly, three feet long, two feet wide, and two deep. The front and the two ends are wire, and the top, back, and floor of mahogany. There is no other wood allowed in it, for mahogany repels the vermin that infest canaries so much if they are kept in a cage made of deal or other soft wood. There are, altogether, five doors to the cage, the largest being at the back, and capable of admitting a full-grown man, if he wished to enter. A border of glass, four inches deep, runs around the bottom of the cage, so that the birds, though always visible, cannot scatter the husks and sand on the carpet; and there are two sliding floors that can be removed, when necessary, in order to cleanse them thoroughly.

But the chief point in the cage is, that the various

portions are held together by screw-bolts and nuts, so that it can be taken to pieces in five minutes, packed flat, and removed without the least inconvenience. When packed, it looks like a large wooden portfolio, for the wire sides and front lie between the solid floor and roof, which being one inch larger every way, protect the wires perfectly.

In this residence the birds can use their wings freely, and seem exceedingly happy. Indeed, if the doors are all opened they generally refuse to leave their home, and when they are periodically turned out, so that the cage may be well cleansed, they sit as close to their residence as they can, in order to return when the doors are opened again. Generally, two or three decline altogether to leave the cage, and have to be forcibly expelled.

If the birds breed well this year, I shall add a dome eighteen inches high, in order to accommodate the larger population. This dome, so to call it, will be something after the form of the transept roofs of the Crystal Palace, and will also be made with a view to removal.

The delight of Nova, and Antiqua, in taking possession of their new home, was very great. As to the goldfinch, he seemed to take a very philosophical view of the matter, and was equally at his ease in the very tiny cage in which he had lived formerly, or in the large and roomy residence afterwards provided for him. In both cases he was continually scudding about the floor, chirping in an undertone, pecking at the sand and seed-husks, and always keeping his legs so much bent, that even his feet were hardly seen.

Thus they lived very happily for some time, when the course of events was cruelly interrupted by a cat. I regret to say that the miscreant in question was my own cat, a huge, solemn, sleek, and contented animal, who ought to have given up such vanities years ago. He was accustomed to be in the room with the birds, and had never betrayed any particular

predilection for them, except lazily winking at them now and then, and I should as soon have suspected him of facing a rat, as of catching my canaries.

He has unlimited capacities for meat and milk, and a most consistent regard for his own comfort. There is one particular round footstool that he specially affects, because it always stands before the fire, and he exactly fits it when he curls himself round for a nap. Even when his mistress has taken previous possession of that stool, he is crafty enough to dethrone her feet, and to take possession himself. This feat he accomplishes by watching the conversation, and when he thinks her attention sufficiently withdrawn from the stool, he begins to push against her feet. Not thinking of the cause, but only feeling uncomfortable, she removes the foot, and pussy occupies the ground. This he repeats until both feet are removed, and then he mounts the stool with a self-satisfied kind of chuckle, curls himself round, and goes to sleep.

Indeed he will sleep anywhere, and in almost any attitude. If I hang him over my knee or shoulder, he goes to sleep. If I pick him up by all his feet, and sling him like a hammock, he goes to sleep. If he is used in the light of a footstool, he is equally contented, and goes to sleep. So that he was the last person in the house whom I could have suspected. But he ill repaid my confidence, as will be seen.

One evening I had returned home rather late, and being in the habit of walking in the dark, went into my room without taking a candle with me. As I entered, Nova began to chirp in a very exulting manner, which I thought was caused by her joy at hearing my step. Just then, there was a slight motion, some soft, heavy body came to the ground, and dashed down-stairs. My heart misgave me, and on procuring a light, I was surprised to see the cage occupied only by Nova, who continued to chirp. Presently I found some goldfinch feathers under the

table, and just beneath the cage, was the dead body of Antiqua.

I could not at first conceive how the cat could have dragged them out of the cage, for it is so large that his paws would not reach half across it, and the birds could easily keep out of his way. But on a closer examination, I found two of the wires actually torn out, immediately over the spot where poor Antiqua's body was lying. Through this small aperture the cat had forced his way, and, being within the cage, caught the goldfinch. This he seems to have eaten under the table, and to have returned to the cage for another victim. He also caught Nova, but she managed to escape from his claws, and he then pounced on Antiqua, killed her, and was just taking her out of the cage, when he was alarmed at my entrance.

The force that the cat employed in gaining admission must have been singularly great, for even with proper tools I found that a hard pull was needed even to loosen any of the wires, much more to draw them out entirely.

Antiqua was quite dead, her poor little skull being broken all to pieces. She was still warm, and had evidently been killed just as I entered the room. Puss, being frightened, dropped his prey and rushed off to the cellar, in hopes of escaping unrecognised. But he was much mistaken, for I went after him, and whipped him severely, at the same time showing him the dead bird. I thought, however, that he might forget the whip, and determined to work upon his faculty of self-esteem, which in him is very great.

So I pecked his nose with the dead bird's beak, six or seven times, and then released him. Down went puss into the cellar, and would not make his usual appearance at breakfast next morning. After breakfast I took the bird into the cellar, found puss in bed, and pecked his nose again. That discipline was repeated several times daily for three days, at

the expiration of which time I had a long talk with him on his misconduct, showing him the bird at intervals, and telling him that if he would behave properly for the future, I would forgive him.

Generally, a cat does not take punishment as a dog does, and ever after abhors and avoids the person who punished it. But puss quite comprehended the circumstances, and next day came when I called him, just as usual.

He has not forgotten his lesson. A few weeks ago, two birds belonging to my brother, died curiously enough, one was a canary, and the other a goldfinch. He thought that, as they were dead the cat might as well eat them, and therefore offered them to him. But at the sight of the birds puss set up his back, and began to growl and spit as if the two dead birds had been two live dogs.

He was thoroughly ashamed of himself while I was reasoning with him, and hid his face with his tail. For he is usually a majestic and stately animal, expecting to be treated with much respect, and not even to be spoken of with levity. If we laugh at him, or offend his sense of honour in any other way, he gets up slowly, waves his tail about solemnly, and disappears under a large chair, declining to emerge for any less consideration than milk.

So it may be imagined how grievously he must have felt the indignity of nose-pecking.

For the loss of the goldfinch I cared comparatively little, but that Antiqua should have fallen a victim was especially provoking. Independently of being the first bird in the aviary, and therefore historically valuable, she was a very conversational little creature of a beautiful shape, and was just the proper age to take on herself the cares of married life.

As to Nova, the sole survivor, she is now in the enjoyment of excellent health, and may possibly begin to build her nest soon. She had an exceedingly narrow escape on that fatal night, her own life

and death having been probably only a question of time.

When I returned from my castigation of the cat in order to repair the cage, a suspicious red stain on Nova's breast caught my attention, and I immediately examined the little bird carefully to see if she had sustained any injury. On blowing up the feathers, I was quite alarmed at the state of things that was revealed. There was a wound extending from the side of the neck nearly to the middle of the breast, one of her wings was broken, several of the quill feathers missing, others broken across, and the greater part of her tail had been pulled out.

I did not think that she could recover, but still took every precaution that bird surgery permits, by snipping off the broken feathers, dressing the wound, &c., and in a few weeks Nova was quite well, with the exception of her damaged tail, which, however, soon grew again.

CHAPTER XXI.

CANARIES—*continued.*

History of Canaria.—Net-door.—The Court Journal.—Melancholy Event.—Unprincely and unpaternal Conduct.—Importance of Ventilation.—Eric and his Character.—His Benevolence and eccentric Habits.—Zephyrus.—Her Arrivals.—Illness and Cure of Cicindela.—Recipe for the Surfeit.—Fits.—Arrival of Osmond.—His pugnacious Character.—His Marriage with Cicindela.—Conjugal Quarrels, and Reconciliation.

As the history of my birds now dates from a fresh source, I must leave them for the present, and pass on to the history of another aviary, belonging to a young lady who is quite an enthusiast in bird-keeping.

Her feathered flock live in a room fitted up with perches, nests, and other necessary furniture. There is a spacious bath on the floor, capable of accommodating four birds at a time, and other vessels are placed conveniently about the room, containing food, sand, and drinking-water.

The door of the room has been removed, and its place is supplied by a net which hangs over the aperture, and which is much more suitable than a door, because the visitor can enter the room without leaving space for the birds to fly out, which would necessarily be the case if an ordinarily-shaped door were used. The net is much larger than the door, and is hitched over certain nails fixed to the door-posts, so that when a visitor wishes to enter, he merely loosens the net at the lower corner, and so can enter and refasten it without leaving room for a single bird to pass.

I very much recommend the net system, but should like to see a board some six inches wide nailed across the bottom of the door after the way of a threshold, for the canaries are very inquisitive

little folk, and they constantly try to squeeze themselves under the net.

This is quite a palace for the birds, and, in order to carry out the palatial idea, its inhabitants are all invested with titles of corresponding dignity. Also, in imitation of the *Court Journal* and the *Morning Post* and other fashionable papers, a regular court journal of the feathered royalties is kept. I thought the idea so amusing that I asked for a copy of part of the journal, which was most kindly given to me, together with a list of the names and titles. It is such a stately document, that I insert it precisely as written.

I must first premise that it is held a grievous insult to speak of the "birds," or the "canaries." No less title than "princes" is permitted, and indeed, if "birds" are mentioned, no one seems to comprehend that the canaries in question are the subject of discourse.

COURT JOURNAL OF CANARIA.

TITLES.	NAMES.	DOMINIONS.
His Supreme Majesty	Edredine II.	King of Myrtilenastina.
Her Supreme Majesty	Liliua	Queen Consort.
Her Supreme Majesty	Zena	Queen Dowager.
His Supreme Highness ...	Egina	Prince of Mezereon.
Her Supreme Highness ...	Agerona	Princess of Mezereon.
Her Supreme Highness ...	Edina	Princess of Cyprestine.
His Supreme Highness ...	Eric	Prince of Cyprestine.
Her Supreme Highness ...	Serena	Princess of Ermitine.
Her Supreme Highness ...	Mindora	Princess of Azure.
Her Supreme Highness ...	Ederena Ethelind.....	Princess of Eldregine.
His Supreme Highness Prince	Ethelredine	Earl of Edestine.
His Resplendent Highness	Egerius Edene Burmundine	Prince of Onyxtine.
Her Resplendent Highness	Zamora Therida Zemla...	Princess of Onyxtine.
His Resplendent Grace ...	Ormundine.....	Earl of Terragona.
His High Grace.....	Eldred.....	Earl of Egina, First Tutor to His Supreme Majesty King Edredine II.
His Brilliancy	Syrenus	Viscount Argentine, Second Tutor to His Supreme Majesty.
His Celestial Majesty	Agenorius II.....	King of Canaria.
Her Celestial Majesty	Edelinda.....	Queen Consort.
His Celestial Highness ...	Zephyrus Gerreantine ...	Prince of Ebenè.

"King Edredine I., who was the most beloved of all the princes, died last year. This event caused the greatest affliction. He was a beautiful creature. His song rivalled that of the nightingale, and all day long he poured forth from his little throat floods of most exquisite melody. He was very loving to his consort and their little progeny.

"While the queen was sitting for the third time, he was attacked with violent sickness, and became very ill. But he still went into the nest whenever the queen called to him. At last he became so ill as scarcely to be able to get to it. On the third morning I found him dead on the nest, the queen sitting close to him. She evidently understood he was dead, for she never again called to him.

"Three little ones were born a week after this melancholy event. The queen brought up, alone, the prince and two princesses thus mournfully deprived of their father's care. The young prince King Edredine II. now reigns in Myrtilenestine.

"Count Philomel married the Princess Seraphine, famed for her great beauty and accomplishments. She was accidentally killed by one of the giants, who at that time infested the principality. So devoted was his love for her, that he pined away, and died of grief four days afterwards.

"Count Philomel was a goldfinch, F. had taught him very amusing little tricks. As soon as she entered the room where he was, he always began to rattle a little chain until she came up to him. He would then take seed from her mouth, and if she held it from him a moment, he went to the chain and began rattling it again.

"Princess Seraphine was a 'Canarian.' She was accidentally stepped upon. They were always together. As soon as he missed her, he pined away, and died of a broken heart.

"The Prince and Princess of Onyxtine are a very fond pair. As soon as day closes they always nestle

close together on the same perch. They are the only pair that do so. While the Princess is sitting, the Prince constantly supplies her place when she leaves the nest. This she never does without first calling to him to intimate her intention. He immediately attends to her call, but before he takes her place, he goes down and eats, then sits on the nest until the Princess returns.

“Before he sits down, however, he examines the nest to see if there are any young ones, and the moment he sees one he begins to feed it. Having performed this duty, he then sits down until his spouse returns. But he always shows unwillingness to relinquish his post. When the Princess returns she tells him to come off.

“F. declares that she understands their language perfectly, but he takes no notice of words, so that she is obliged to get herself in by degrees and at last she pushes him out. Then making herself comfortable she holds up her mouth to him and he feeds her.

“But truth obliges me to declare, much as I admire the character of this prince, that he has a failing. I do not know whether it arises from a spirit of mischief, or whether it springs from the activity of his mind, which seems to demand constant occupation; but the moment his little ones have left the nursery and are under his care, he begins pulling out their feathers and is not satisfied until he has left every one of them without a tail.

“His eldest son Prince Ethelredine is to be married next Saturday to her Supreme Majesty Queen Zena, widow of King Edredine I.

“Six years ago the founder of Canaria, King Zephyrus I., very nearly lost his consort.

“F. took with her to Eastbourne King Zephyrus and his consort, Queen Serena, and the young heir to the throne, the Prince of Ebenè, who was six weeks old. Five weeks after their arrival the Queen had

five more little ones, the youngest was born on the eventful day.

“One evening, on returning from a walk, F. went as usual to look at her favourites, and found, to her consternation, the window and the side-entrance to their palace wide open. Queen Serena was accustomed to fly about the room, she had flown out of the window, her son having flown away with her, and of course could not find their way back again. King Zephyrus had not gone with them, but remained with his young children. Emissaries were immediately despatched in all directions, and a reward offered for their recovery.

“Queen Serena was very soon brought back, having allowed herself to be caught. But her son was never found. The moment the Queen entered the palace she went straight to the nest and seated herself upon it.

“The nuptials of their great grandson, the Prince of Ebenè, will be celebrated in a few days. He is betrothed to the Princess Mindora, third daughter of the late King Edredine.”

The tutors here mentioned, were two German canaries, who possessed the nightingale's song, and were most beautiful songsters. These were kept in cages, in order that the young birds might hear them singing, and so catch their notes.

Soon after their admission into the aviary the birds began to droop and look sickly. The cause of this circumstance was soon found to be the imperfect state of ventilation, and after a pane of glass had been removed from the upper part of the window, and perforated zinc substituted, their health rapidly improved.

Two of these birds—I ask pardon—princes, have been generously transferred to my own aviary, where they are both in the enjoyment of excellent health and spirits. The elder of the two is Prince Eric, who is rather a remarkable individual in his way.

He is a most determined songster, exercising his little throat almost incessantly. He cares nothing for a darkened cage, but sings just as boldly as if the sun were shining on him. Even when he fights—which I regret to say is constantly the case—he does not cease his song, but dashes about the cage, drives his opponent into all the corners, chases him round the bath and under the seed-box, circles round him on the wing, and all the time sings as if he would tear his throat to pieces.

He has also many excellent qualities, benevolence being the most prominent. Last year he married, and brought up a large family. After he had seen his progeny settled in life, it happened that a nest of young canaries was deprived of the aid of their parents by some misfortune. Eric took compassion on the poor deserted little birds, attached himself to them, and succeeded in rearing them all.

He has some very curious habits, among which may be mentioned a dislike to a round perch. Indeed, so much does he detest them, that it was made an express stipulation with me that Prince Eric should have a square perch or a shelf, before he was allowed to enter my cage.

So I made him a square perch, and he never sits on it, always choosing the very spot that an ordinary observer would select as the most uncomfortable in the whole cage. I made a seed-box for the large cage, and constructed the upper portion of it of glass, so that the quantity of seed might be known without opening the box, and disturbing the birds. To guard against the use of the seed-box as a perch, I made the top to slope at an angle of forty-five degrees, so that any bird perching on it would slide off. Yet on this very glass Eric chooses to perch, and prevents himself from slipping by hitching his claws over the edge.

Lately I put up some nest-boxes and baskets in the cage, and made a domed cover for one of the baskets.

It was hardly fixed before I heard a great scratching and scuffling, and on looking round I saw Eric seated on the top of the domed nest. It nearly touches the roof of the cage, but he had contrived to squeeze himself between the roof and the nest, and was looking quite at his ease.

He generally sings on the ground, or on one of these posts, and the only portion of the perches that he condescends to visit, is one spot where the perches intersect each other.

The second prince is Zephyrus Gerreantine, whose father having lately died, is now the sole representative of his royal family. He is a lively little bird, of a bright orange colour, with black head and wings. He is rather bullied by Eric, but evades him by slipping under the seed-box. A day or two ago, as Gerreantine was sitting quietly near the crossed perches, Eric walked up to him, took him up by the neck, dropped him on the ground, and then took possession of his place. It was done in the coolest and most matter-of-fact way imaginable.

I have had some idea of drawing and emblazoning the coats of arms of these various families, glazing them, and fixing them round the cage as ornaments. But it would take up so much time that the execution of the idea must be postponed to a future occasion.

On my arrival at my new quarters, I put together the large cage, and thought that it looked rather deserted and uncomfortable with only one inhabitant. So I bought a gentleman as a companion for Nova. He is a very bold and sprightly bird, of a dark green colour, and called, by especial desire, Xeranthemus.

There being now three gentlemen, and only one lady, it was but right that a better arrangement should take place, and so I bought two ladies, one of which I called Cicindela, and the other Notonecta, the former because it is a pretty name,

and the latter because she had lost her tail, and when she spread her wings to fly, she looked so like the insect called the water-boatman, that I endowed her with its generic title.

There were then six birds in the cage, and they looked so pretty that it cost me a succession of violent efforts to keep myself from going out immediately and buying six more.

Soon after her admission into the cage, *Cicindela* took the surfeit, and became quite bald. Her appearance was very remarkable, for the feathers had all left the crown of her head, and her two eyes stood out like two big black balls, set in scarlet sockets. The poor bird was very ill indeed, and I thought that she would die. However, I anointed her head well with sweet almond oil, kept her in a separate cage, and fed her upon the following mixture, which is a most useful one, and one which I append for the benefit of all canary-keepers.

Take bread, soaked in *cold* water, and squeezed nearly dry, oil of sweet almonds, lettuce chopped fine, yolk of hard boiled egg, and moist sugar. Mix them well, and give fresh every morning.

For some time after the bird has been restored to health, it presents a most unsightly figure, and indeed does not regain its plumage until the season for the moult, at which time it will be restored to its pristine beauty.

There were other inhabitants of the cage, of whom two died, one from a cold caught during the moult, and the other was found lying dead at the bottom of his cage one morning. He had been perfectly well all the previous day, so that he must have been seized with a fit, from which he had not strength to recover.

Canaries are very subject to fits, which come on at the slightest disturbance. I know a canary that always falls down in a fit if a stranger touches his cage, and very often does so even when his

owner removes the sliding floor. He spreads his wings, utters a succession of little squeaks, falls backwards on the floor, and there lies gasping for some minutes. Some canary-fanciers bleed their birds, when they have fits, by pulling out one of their tail-feathers, but I do not much advocate the measure.

My latest importation is a beautiful bird who was sent to me from Ramsgate, and whom I call Osmond, in honour of the giver. His notes are peculiarly sweet, and very powerful. But he is abominably quarrelsome, and if he were permitted to stay among the others, would spend most of his time in chasing and pecking his companions. He does not seem to be particular as to his adversary, for after he has been fighting with Xeranthemus for five or six minutes, he hops on the edge of the bath, takes a sip of water, and then attacks Eric.

If canaries only knew how ugly they look when they are in a passion, they would never so disfigure themselves. There are Eric and Osmond, two as pretty birds as one can wish to see, and blessed with exquisite voices, standing opposite each other, their necks stretched out, their wings half expanded, their bills open, and scolding each other in the harshest imaginable tone, more fit for a crow than a canary. They have sometimes stood in that absurd attitude for five minutes at a time, without stirring, and then dashed at each other like a couple of game-cocks.

At last I got angry with Osmond for disturbing the peace of the aviary with his combative disposition, and, to his great dismay, caught him and transferred him to another cage, where he was at liberty to fight the wires or the perch if he chose.

After he had been there for a few hours, I found that Cicindela was very unhappy at his absence, and was continually flattening herself against the wires of her cage, in order to look at him. So I caught her also, and placed her in another compartment of

Osmond's cage. There she was quite as eager as before to get through the bars that separated them, and he, on his part, came and looked at her constantly. So, after she had been there about half a day, I removed the partition, and permitted her to join him.

When she was fairly in the cage with him, she would not have anything to do with him, scolded him if he came too near her, or, if he disregarded her words, she had recourse to deeds, and pecked him. Osmond could not put up with such treatment, and pecked her in return.

Consequently, within five minutes of her entrance into the cage, they had a desperate fight, in the course of which Cicindela took refuge in one of the nest-boxes, and cried for mercy. Osmond, however, stationed himself at the entrance, so that she could not get out again, and pecked away at her quite at his ease, she squeaking pitifully.

At last she became desperate, made a bold rush at the entrance, and knocked Osmond on the floor. He was so much astonished at this occurrence that he was obliged to drink some water before he could recover himself. He then thought that he would make it up with her, and, in token of reconciliation, brought her a hemp-seed, which she received graciously. Since that time they have been capital friends, and feed each other constantly.

This seems to be the regular course of things with the matrimonial affairs of canaries, who thus prove the accuracy of Mrs. Malaprop's maxim, that it is best to begin with a little aversion.

CHAPTER XXII.

CANARIES—*continued.*

Xeranthemus becomes jealous.—Revenge.—Importance of the Morning Sun, and of Quiet.—The Birds dislike the Lamp.—Osmond perplexed.—Observant Character of Canaries.—Their Squabbles at Roosting-time.—Fighting for Food.—Clever Management.—Mischievous Habits.—Bath put to a wrong Use.—Nest Building.—Picking a Bone.—Their Fear of a Ball.—How to tame Canaries.—Trained Birds.—Bird-Hawkers to be avoided.—Masquerading Sparrow.—A.D.L.L.

SINCE Osmond has been removed from the cage, Xeranthemus has become a shameful bully, and has also been put into a separate cage. The fact is, that he became very jealous of a young rival, who had proposed to Notonecta, and been accepted, while Xeranthemus cannot find any lady who will smile upon him. I very much fear that he has damaged one of his rival's eyes, for the poor little bird could hardly open it when I looked at him after one of these quarrels.

Xeranthemus hit upon an ingenious mode of torturing his victim. He chased the hated rival round the cage until he was quite fatigued, and then, driving him into a corner, took a beakful of feathers, and did his best to pull them out. He generally chose the feathers of the back or neck for this purpose, but lately has preferred those of the head, so that I thought it quite time to separate them.

Three of my birds have now (March 27) taken possession of nests, but whether they will lay and hatch, is doubtful. For the rays of the morning sun are almost indispensable for the successful

breeding of canaries, and my windows have a north-eastern aspect, which is just the worst that could be chosen for the purpose.

Last year they did not even lay an egg, but then they had hardly time to make acquaintance with each other before the season was over, and they had not passed the winter together, which is a most useful preliminary. That year, also (1856), was, by all accounts, a very bad year for canaries, and especially fatal to the young birds, many entire broods having perished before they were fledged.

However, it will not be any disappointment if the birds do not lay, although, if they rear any young, it will be a gratification.

There is another disadvantage also, namely, the want of quiet, for the window looks out on a noisy street, and the door of the room is seldom closed for any considerable time, except at night. Even then, there is the glare of the lamp, which, being a moderator, is very bright.

When fresh birds are introduced to the aviary, they cannot endure the lamp, and scold me for lighting it. Formerly I used to throw a covering over the cage, but it was of very little use. Xeranthemus still detests the lamp, and whenever he wakes, begins to sidle about his perch, and to say, "check! check! check!" in quite an indignant tone.

As to Osmond, the lamp puzzled him extremely. He is a persevering songster, and even sang within five minutes after his arrival from Ramsgate. On that same evening about 10 P.M., he woke suddenly, saw the lamp burning, and evidently thought that it must be the sun. So he shook himself, and began his morning's song, much to the disgust of Xeranthemus, who set up his "check!"

Presently a doubt came over him, and he stopped abruptly in the middle of a phrase, looked at the other birds, then at the window, then at the lamp, and finally put his head under his wing. Hardly had

he settled down again before some sound attracted his attention, and he recommenced his song, breaking off as before.

After this had occurred several times, he seemed to have made up his mind, and did not wake again. Now he does not care for the lamp at all, nor does it disturb him if I poke the fire or throw on fresh coals.

Canaries are very observant birds, especially in matters that concern themselves personally. Since they have begun to build, they have been indulged with chopped egg and bread every morning. They approve of this diet amazingly, and in a very short time learned to connect the sound of chopping with the presence of egg. Whenever they hear the welcome sound, they cease all occupation, jump on the perch, and there sit in a row silently watching the proceeding. They do not even fight while waiting, nor scold each other, which is a proof of their anxiety.

In general they are always fighting, either in play or in earnest, and towards evening they all fight for their roosts. Nova seats herself on the perch and begins to make herself comfortable. Thereupon Eric gets on the same perch, sidles up to her and drives her off. She retaliates on a third, who probably ejects Eric in his turn, and so they continue to squabble, calling each other all sorts of bad names for nearly half an hour, when they all settle down quietly and go to sleep.

And the funniest part of the affair is, that they always occupy exactly the same spots night after night, and there is not the least necessity for fighting.

Then, after the chopped egg has been placed in the cage, another series of combats begins. I always put soft food into a clam-shell, and place it on the floor of the cage. The shell is very convenient, because it can so easily be washed, cannot be overturned, and is of a very elegant form.

I am also in the habit of growing mustard and cress in clam-shells, and so giving the birds their green food in perfection. In such cases, they eat all the plants, including the roots, peck up the earth with their bills, and scatter it all over the cage.

But when they find such a luxury as chopped egg in their cage, they hold great revelry over it, and invariably go through precisely the same series of performances.

First, one bird descends, and perches on the edge of the shell, not touching the egg, but only twisting its little head first on one side and then on the other. Down comes another bird, and perches on the opposite side of the shell, when the two scold each other, and mutually retire from their opponents. Much the same manœuvre is repeated by another pair, followed in their turn by a third, until the birds are standing in a circle round the shell, all chattering volubly, but none daring to touch the egg through fear of its companions.

At last, one bold bird, generally Eric, rushes in, and begins to peck. Three or four of the bystanders immediately pounce on him, and chase him into all corners of the cage, he with a piece of egg in his beak which he has not time to swallow, and they abusing him with all their might.

In the meanwhile the quieter birds are making tremendous play at the egg, eating as fast as they can, and employing to the best advantage the short time that they know will be allowed them. The combatants soon see that the egg is diminishing, and both Eric and his pursuers make a combined charge among the eaters, and take their places.

The ejected birds then all ascend to the perches, and try to look as if egg were not of the least consequence to them. One of this set is in the habit of going to the seed-box whenever he is driven away from the egg, and making believe to eat rape-seed with much appetite.

But it is all a pretence, and only intended to throw the others off their guard. For presently, one of the birds gets hold of a larger piece of egg than his companions think him entitled to possess. All his messmates remonstrate with him on the subject and finally chase him away from the shell. He of course resists, and there is another grand skirmish, under cover of which the peaceful birds descend upon the egg, and there feast until again driven away.

Much the same series of combats may be witnessed on the introduction of a sprig of groundsel or watercress, after they have been without green food for some days. If they would only assemble quietly round it, each would have his own share without any trouble, but they are so pugnacious, and I grieve to say, so selfish, that every bird tries to prevent his neighbour from obtaining any share at all; the consequence is, that after much hard fighting, one or two of the strongest birds get all the groundsel, and the others are forced to go without even a mouthful. I have known them to fight for half an hour over one sprig of watercress, and at the end of this time not a single bird had even tasted it.

They are all mischievous little creatures, apparently for the sake of the mischief itself. Nothing seemed to please them more than tossing the seed-husks out of the cage. As this practice tended to disfigure my carpet, I fastened a strip of gauze round the cage, but found that the precaution was of little use, for they set to work at the gauze itself, and soon pecked away the threads that bound it to the wires, beside pushing so much seed between the gauze and the bottom of the cage, and it was impossible either to shift or remove the gauze without dropping an avalanche of seed and sand on the carpet.

However, I conquered them by the introduction of a glass edging to the cage, but it was not until they had rapped their beaks repeatedly against the glass that they ceased their mischief.

Even now they have discovered one or two interstices where a screw-nut prevents the glass from fitting quite closely, and through these apertures they contrive to push a tolerable number of husks daily.

Sometimes they take a fancy for putting everything into their bath, and, in consequence, although I give them clean and fresh water at ten A.M., when I come to look at them at noon I find their bath choked up with wool, moss, sand, husks, and sometimes crusts of bread. One day I had given them a large supply of groundsel, and was rather surprised to find that they had eaten it so quickly. But on a closer examination, I found every scrap of the groundsel safely lodged in the bath.

As to the wool and moss, which is placed in the cage in order to afford materials for nest-building, they apply it to every imaginable purpose, except that for which it was intended. At first they tried to push it all out of the cage, but finding that plan impracticable, they set to work, and stuffed the wool into every crevice that they could find. It was in vain that I replaced the wool in the rack, for as fast as I replaced it, they took it away again, so I left them to their own devices.

I tried to make a nest for one pair, but they would none of it, pulled out all the materials, and piled them up in a corner. After keeping their store thus stacked for a day or two, they took it all back piecemeal, and made it into a nest again.

They are all very fond of picking a bone, and I sometimes give them the bone from a mutton chop, or even the leg-bone of a fowl. They find great amusement in carrying the bone about the cage, fighting over it, and pecking at it. Sometimes they will carry it to the highest perch, and there assemble in full conclave round it, until the bone falls with a crash, and then they scatter away in all directions.

They are so fond of play, that I thought to ~~amuse~~

them by the introduction of a gutta-percha cricket-ball, which might roll over when they perched on it, or when they pecked it. But they were all quite afraid of it, and not a bird would even come on the floor as long as the ball remained in the cage. The reason of their fear I cannot imagine, but their dread was so evident that I removed the ball, after it had remained in the cage for two days.

Canaries can be made very tame, and taught to perform many little tricks, if properly treated. The best way to make them familiar, is to watch when they are nearly fledged, and then to accustom them to the hand. If at the same time they are supplied with some agreeable food, they will soon learn to perch on the hand if it is held out to them, and to sing while sitting on the finger.

But I do not at all advocate such a course of training as is requisite to make the birds regular actors, for it quite destroys their character, and the effect is simply marvellous without being in the least elegant. Birds can be taught to fire guns, to sit on the edge of a trumpet while it is sounded, to enact the part of Mr. and Mrs. Caudle; and to draw each other about in carriages, but they always look very miserable, and generally contrive to rub off a large proportion of their feathers.

Let me take this opportunity of dissuading my readers from purchasing those birds that are hawked about the streets. Even if they are really the birds under whose names they are sold, they are defective specimens, picked up cheaply, as the refuse of a regular bird-dealer's store, and then sold for just as much as the buyers can be induced to give. I have known one of these street-dealers ask five shillings for a canary, and consent to take eighteen-pence.

Sometimes, however, they are not canaries at all, but hedge-warblers, or even common sparrows, painted yellow. There is much ingenuity displayed in the painting and dressing of these imitations, and

often the imitation looks rather handsomer than the genuine specimen.

One of these birds was bought by a lady, who was charmed with the little creature. It possessed a beautifully rich orange-coloured plumage, was lively, and had a splendid tail, with feathers radiating like a fan. When it was taken home, its mistress placed it in a cage, and gave it some water to bathe in. The bird jumped into the bath, splashed about vigorously, and hopped on its perch—a simple brown sparrow. It was found that the crafty dealer had painted the feathers very carefully, and had then starched and curled the tail.

There is an immensity of A.D.L.L. in the world, and it exhibits itself quite as strongly in ornithology as in antiquities.

CHAPTER XXIII

CANARIES—*continued.*

Young Canaries.—Juvenile Impertinence.—Necessity of Lime for the Birds.—Soft Food.—Various Bird-seeds.—Self-starvation.—Curious Accidents.—Feather Eaters, and Feather Stealers.—Canarian Curiosity.—Playfulness of Young Birds.—Character of Xeranthemus.—His Discomfiture.—Ungrateful Children.—Love of “Make-believe.”—Various Modes of Bathing.—Singular Mistake.—Nova’s last Failure.—Her change of Temper.—The Swing Perch.—Various Breeds of Canaries.—Mule Birds.

THIS account of the canaries has been written at various intervals, spread over nearly an entire year, and I rather prefer to leave the separate narratives as originally written, than to re-model them. There is generally a loss of spirit in over-refining.

Therefore, I have to say that the season has been very successful, and that, in consequence, the promised wire dome has been added to the cage, giving it a much lighter appearance.

The first additions were produced by Nova, who married Eric, and, after spending much unnecessary time and labour, built her nest, laying therein four eggs. One of the eggs was useless, and Nova turned it out of the nest—a habit which seems to be very common with these birds—I have seen a bird toss away three eggs out of five in a similar manner.

In process of time were hatched three little birds, which are, in my opinion, the ugliest specimens of undevelopment that can be imagined.

They have big heads, huge round eyes, covered

with an unhealthy-looking membrane, a beak that opens to an almost unlimited extent, and apparently leaves no room for a brain; then, attached to this head, is a long, thin, unmanageable neck, of which the windpipe is the most prominent portion, and which is decorated by a few white downy fibres, that are inserted precisely where they might be least expected.

At the end of the neck is a little round, reddish, semi-transparent body, exhibiting the interior anatomy through its covering, and supporting in some wonderful way a pair of legs. Such legs! They are long, quite bare of feathers or any such covering, and sprawl with perfect impartiality in every direction, for joints appear to be of no consequence at this period of life.

As to wings, there are two little projections, edged with a few white downy tufts, but apparently without power of independent movement. And yet, in five weeks or so, these helpless little objects may be seen flying about the cage and bearding their elders with exceeding coolness.

One of this family used to be a constant annoyance to Xeranthemus, who bore no relationship to it whatever, and, in fact, had been rejected by the mother. The little bird chose to be fed instead of taking the trouble of feeding itself, which it was perfectly capable of doing, and when its parents would feed it no longer, went off after Xeranthemus. Having found him, the bird used to station itself just in front of him, and to make such a disturbance with voice and wings that Xeranthemus was obliged to feed it in order to obtain peace.

The rapid increase of size, and consequently of weight, is very remarkable in the early stages of the bird's life. When they are first hatched, there is scarcely any difference in the weight of the eggs or the young birds, and this equality remains for a day or two. Suddenly, the nest is found to have gained

considerably in weight, and after that time every day brings with it an amount of development that is perfectly marvellous to one who watches closely. And the amount of egg, bread, and seed which they consume does not seem at all commensurate with the effect produced.

I may as well mention here that every precaution should be taken against any deficiency in soft food while the young birds are still in their infant state, or even while the hen is laying. In the former case, the young may be starved, for they are accustomed to be fed at very short intervals; and in the latter case, the hen sometimes becomes cross, and breaks her eggs just through spite. It is not always for the purpose of eating them, for she often merely breaks and leaves them; but when she has laid an egg, she seems to think that she ought to be recompensed for the trouble—and, in fact, strikes for wages.

The supply of water also ought to be carefully kept up, and also means for producing sufficient lime wherewith to form the egg-shells, which are sometimes soft and perishable when the bird has not access to lime. I generally used to pound to a fine powder the shell of the egg which was given as food, and either to mix the powder with the food, or to give it to the birds in a separate vessel. Either plan seemed to succeed.

A piece of old genuine mortar is a very useful adjunct to the breeding cage, as it is composed of lime, and the birds find great amusement in picking it. I say "genuine" mortar, because in these days even mortar can seldom be found in a pure state, mud forming its chief constituent. We seem to be approaching the condition of the tower of Babel, bricks instead of stone, and slime for mortar. It is no wonder that our houses tumble down.

The soft food for the canaries in their breeding season should be composed of hard-boiled egg, chopped very fine, and well mixed with finely-crumbled bread

or with biscuit-dust, which is even better than bread. These two ingredients should be thoroughly well mixed before they are put into the cage; because, although canaries like bread-crumbs well, they like egg better, and will toss out all the bread in order to get at the egg. A little, but not much, maw-seed may be advantageously mixed with the bread and egg; and at the beginning of the season, some moist sugar will be found useful.

If these precautions are carefully attended to, success will be almost certain. There are necessarily adverse influences, against which no one can contend; but where there is one failure through disease, there are a hundred through neglect. Even an insufficient supply of sand will throw a bird into a state of ill-health, from which he never entirely recovers. The quality of the seed should be examined. The canary seed should be smooth and polished on its surface, and perfectly dry; the rape-seed should be clear and dark in colour; the maw-seed of a light pale bluish grey, and the hemp-seed large, firm, and well rounded. Of this last but little should be given, as it is of a very heating character. Still the birds are very fond of it; and, in moderation, it is good for them.

Some bird-keepers say that the hemp-seed should be bruised before it is given, but I do not recommend the practice. The birds ought to be able to crack the seeds themselves, and if they cannot do so, they are not strong enough for such food; besides, any one may see that the very trouble of cracking the seeds is an amusement for the birds, whose beaks are made for that purpose, and ought to be exercised. We, in the same way, derive great amusement from cracking and peeling walnuts, for which fruit we should not care nearly so much if it were sent to table ready cracked and peeled.

It is, moreover, found to be the case, that when birds have been accustomed to such extra care, they are incapable of properly shifting for themselves. I

have seen a whole cage full of canaries that could not eat seed at all, and were fed on meal. The consequence of such mistaken treatment is, that if the birds change owners they are furnished with food that they are unable to eat, and so are starved to death in the midst of plenty.

Sometimes a bird is starved under very curious circumstances, and in a way that would hardly be suspected. It has, we will say, been accustomed to a very small cage, where there is no possibility of exercise, either for wing or leg, and where it can drink water or peck seed without moving more than a step. This bird comes into the possession of a humane individual, who compassionates it, and furnishes it with a roomy cage. When shifted to its new locality, the bird scrambles in alarm on the upper perch, and there sits. It sees the food and water below, but dares not hop such a distance as that between itself and the next perch on the floor, and has no idea of using its wings. So it seems after a while to make up its mind that it *must* be starved, tucks its head under its wing, and so dies.

This is not likely to be the case in a cage where there are other birds, for they always bully a new-comer, and drive him about, just like so many school-boys. The canary is not so liable to this error as the bullfinch.

Birds do contrive to damage themselves in singular modes. One of my own canaries drove its head between the bars of the cage, and slipping down to the brass wires, nearly strangled itself before it could be released. Entanglement in the thread net that encloses the moss for the nest is a common occurrence. If a bird who has only been accustomed to cage life is let fly in a room, it often hurts itself severely, and sometimes kills itself, by flying towards the light and dashing its head against the glass.

Wild birds also have been known to fall victims to a similar fate, as will be seen from the following

anecdote, which I may be excused from repeating here, although it has already appeared in my notes to White's "Selborne."

A lady, on opening her window, saw a bullfinch quietly seated outside on the sill. To her great surprise it did not move when the window was opened, but permitted itself to be taken up by the hand and carried into the room. When placed on a table, it gave no indication of a wish to escape, but sat still as if it were suffering from illness.

"An examination being instituted as to the cause of this singular circumstance, a seed was found firmly fixed in the bird's throat. The impediment was soon removed with a needle, and the bird became quite lively.

"This relief proved but a temporary respite, however, for while a cage was being prepared for its reception, it escaped from the hand of its benefactress, flew hastily to the closed window, and being unaccustomed to glass, dashed itself with such violence against one of the panes, that it fell dead on the ground."

It sometimes happens, that when the claws of birds grow to a greater length than their ordinary dimensions, the bird hitches them among the wires, or upon other objects, and then struggles so violently to escape, that it kills itself, or, at least, inflicts serious damage.

There is a bullfinch of my acquaintance, one of whose claws has assumed the shape of a corkscrew, and by this mis-shapen claw the poor bird is constantly entangled. On the last occasion, he was so terrified that he forced his head, large as it is, between the bars, and, by dint of struggling and fluttering, had reduced himself to so weak a state, that his recovery seemed almost impossible. However, he is a sturdy and self-sufficient personage, and soon recovered his strength.

As adult birds are thus often sufferers, it may be easily imagined that when they are very young, and

especially if they first see the light in a state of captivity, they are exceedingly delicate creatures, and are liable to as many misfortunes as those of unfeathered bipeds. The first few weeks of their existence are peculiarly precarious; for there are so many circumstances that may injure, that out of twenty young birds hatched, it is hardly safe to count upon more than half their number attaining the age of three months.

Some of my own have perished in a very strange manner, and others have been saved where their destruction seemed to be inevitable.

For example, I was opening one of the doors in the cage, when a young bird shot out between my arm and the wires, and began to fly about the room; after a turn or two, it flew straight to the fire. I succeeded in brushing it away from the dangerous spot; but it instantly returned, and flew into the very midst of the red-hot coals. I snatched it out, expecting to find that the poor little thing was so much burned that I should be forced to kill it in sheer mercy. But a close inspection showed that there was no damage done, except a few feathers shrivelled at their extremities, and one scorch-mark on the sole of a foot.

I replaced the bird in the cage; and it seemed to have suffered no harm, with the exception of the fright.

Another young bird died in its infancy, from the effects of a severe accident. It tumbled out of its nest—a fall equivalent to that from a “three-pair back”—and in the morning was found dead, stiff, and perpendicular, its head on the ground, and its tail pointing to the zenith. The head was quite buried in its breast from the severity of the blow.

One of its brothers died soon afterwards; and, as far as I can see, its death was caused by insufficiency of clothing. Xeranthemus and several other birds were so fond of following it about and pulling out its

feathers, that it was left nearly naked, and was in consequence always shivering. If I had been anything of a tailor, I would have made it a flannel frock; but as I have no genius that way, the bird was left to its own devices.

There seems to be in many birds a strange predilection for depriving others of their feathers, for no apparent reason, except that they like to nibble the quills. *Xeranthemus*, for example, has a quaint habit of sidling up to one of his companions, pulling out one of its feathers, and then sitting on the perch with a complacent aspect, nibbling the quill end of the feather which he has just extracted. The larger the feather, the better he seems to be pleased, and the more noise he makes in nibbling.

I hold that his conduct is inexcusable, as it only arises from a principle of selfishness, but in another case some excuse may be found.

Notonecta having found a husband, thought that she ought to put his house in order for him and his expected family, and accordingly made a nest of the usual materials. But when the nest was just completed, she seemed to be dissatisfied at its appearance, deserted it, and made a second in another box. Still she appeared to dislike both nests, and went about the cage in a vague and uncertain manner, occasionally looking in her windows, and then flying off.

At last, she seemed to have discovered where the deficiency lay, and hopping up to a brood of three young birds, about five or six weeks old, proceeded to extract from their bodies several beakfuls of feathers, with which she proceeded to her nest. She then tucked in these soft, downy feathers, and went off for a further supply. In a very few minutes she had picked so many feathers from one little bird, that there were two triangular bald patches left, one on its back and the other on its breast.

Affairs having arrived at such a pitch, I thought

that I must protect my little birds, and so gave Notonecta a double-handful of soft down from the breast and wing-coverts of a white owl. She seized on this supply with avidity, stuffed the whole of the down into the nest, and then returned to the young canaries for more feathers. It was impossible to stop her depredations, so I just let her alone.

She spent nearly a fortnight in making her two nests instead of finishing them in a couple of days as she ought to have done. Whether she injured herself by the delay I know not, but after laying two eggs, with an interval of eight days between them, she died in the course of the night, and in the morning was found lying dead under her nest, and all the other canaries standing in a circle round her body and looking at her.

Indeed, I generally find that if one of the birds dies, the others collect round it. They appear perplexed at the sight of death, and cannot understand why their companion does not hop about as usual. They try all kinds of experiments for the purpose of satisfying themselves that the dead bird will not move, such as pecking it, pulling its tail, or hopping over it. If the dead bird remains undiscovered for any length of time, its companions usually pluck out the greater part of its feathers, not out of sport, but merely in their attempts to make it stir.

In the present case, I allowed the nest and eggs to remain, in hope that some other bird might take to them, as does sometimes happen. But the other ladies had nests of their own to look after, and the gentlemen were employed in waiting upon and feeding their wives, so that the nest was left to the three young birds whose feathers had contributed to its formation, and they held high festival therein. They were particularly pleased at the opportunity, for reasons that will be seen presently, and made the most of their time. Part of the nest they pulled out, and carried about the cage, making believe to

build nests of their own, and with the remainder they continued to cover the two deserted eggs.

Just as one of them had hidden the eggs completely, another would take possession, toss all the covering out of the nest, poke it through the wires, drop it into the bath, or drive it into the interstices of the sliding floor, just as if it were a shipwright employed in caulking a vessel. Another would then take up the business of hiding the eggs, and arrange over them a layer of wool and feathers, which in its turn would be removed. And thus they proceeded until they had emptied the nest.

These are three quaint little creatures, and maintain their rights of primogeniture over the other inhabitants of the cage. When they were only just able to fly, they were accustomed to act with all the self-sufficiency of spoiled children, and took liberties even with the misanthropical Xeranthemus. I quite pitied that bird, for he is of a haughty and reserved temper, despising the rest of his associates, and holding aloof, probably because he is green, and they are only yellow. If a supply of groundsel or egg, or any little dainty, is put into the cage, the rest of the birds descend immediately, and peck and squabble in a decidedly plebeian manner. But Xeranthemus betakes himself to the highest perch, and does not even look in the direction of his companions. When he fancies that he can do so without compromising his dignity, he descends, pecks deliberately for a few minutes, and then reassumes his lofty seat, leaving the remainder of the food to the more ignoble.

So, it may be imagined that to a nature of this character, the tricks of impertinent young birds, not even fledged, must be distasteful. But Xeranthemus was just their victim. They would not perch anywhere except on his back, where they used to arrange themselves crosswise, two at a time, and I have repeatedly seen him fairly tumbled off his perch, by the sudden descent of these young birds on his back.

On these and similar occasions, his look of disgust and astonishment was worth seeing, and he used to betake himself to his high perch and shake all his feathers, as if to free himself from contamination.

I have already mentioned how he was obliged to feed one of these little tormentors, and he always did it with an air that irresistibly reminded the spectator of a fashionable gentleman giving a penny to an importunate crossing-sweeper, just to get rid of him, his whine, and his trailing broom. Imagine the look which the same gentleman would assume, if the sweeper were to jump on his shoulders, and a very good idea may thence be formed of the mode in which Xeranthemus acts after one of these persecutions.

As is often the case with canaries and other small birds, Nova began a second nest when she had succeeded in rearing her first brood. Her former family took this proceeding to heart, and were evidently insulted at their ejection from the nest in which they had been hatched and bred. In consequence, they were accustomed to watch every opportunity of entering, and I have constantly found Nova sitting under her own nest with a beakful of wool and unable to enter, because one of her own children had got into the nest and declined to turn out. At last, she seemed to expect my assistance, and used to wait until I ejected the intruder before even attempting an entrance. It was not often that she left her nest, and when she did so, she always glanced around, in order to see that the coast was clear. But three pairs of eyes are better than one, and it was very, very seldom that she fairly reached the floor of the cage before her nest was occupied.

At last, however, the young birds seemed to understand the true state of things, and contented themselves with peeping into the other nests and inspecting progress. So it may be imagined that when an entire nest with two eggs became vacant, as at Noto-

necta's death, they were delighted at their good fortune and made the most of it.

To my eyes, the most comical part of their proceedings was, the make-believe nest-building, and it reminded me of little girls and their dolls. Canaries can play as well as human beings, and possess the faculty of "make-believe" in some perfection. There is one of them who always makes believe to bathe and never does it.

All the birds have their own mode of bathing, according to their character. Osmond, for example, as soon as the bath is placed in the cage, flies plump into the middle of the water, stands and looks about him for a moment or two, and then splashes with such vigour that he scatters the water far out of the cage. Nova flies quietly towards the bath, and perches genteelly on the edge. Then she inspects the water first with one eye and then with the other. She then hops into the water, and after a rapid evolution or two, emerges, and dries herself. Xeranthemus always stands on a perch that nearly overhangs the bath until he sees a favourable opportunity, when he enters the water with a dignified air, submerges himself once or twice, and then arranges his plumage on a lofty perch.

But as to the make-believe canary, I never yet saw him bathe, and I do not think that he ever has done so really. His plan of proceeding is to fly to the bath with great ostentation, to perch on the rim, and from that post to scold every bird that comes near—saying in fact, "Here I am, just going in!" When he has driven the others away, he makes a kind of half-duck towards the water, but resumes his former position. He then sidles all round the bath until he has returned to the spot from whence he started. I have seen him do this six times in succession. He then cautiously dips the very extremity of his beak into the water, splashes up a few drops, and flies to a perch, where he ruffles up all his feathers, preens

himself, and shakes his plumage as if he were quite wet and were busily employed in drying himself.

So have I seen a boy talk largely of his intended exploits in the water, undress himself, dip one toe, lose courage and dress again. Boys and canaries are very like each other.

There was rather a curious discovery lately, when no less a fact was disclosed than that Prince Gerreantine had built a nest and laid four eggs. So it may be deduced that the bird is of the softer sex, and her name must be Gerreantina. The fact is, the more remarkable, because the whole aspect of the bird was that of a male, and her notes gave promise of melody. However, there was the nest and there were the eggs, although they came to nothing. For, probably, on account of her recent assumption of a new character, she did not seem at home in her nest, and after she had laid the eggs, declined to take any further trouble with them. It is a curious fact that she is so exactly copied in shape, tints, and markings by one of Nova's progeny, that a stranger cannot distinguish the two birds from each other, and I am liable to be mistaken sometimes. Yet she is of an entirely different family.

Nova has behaved remarkably well this year, for after rearing two broods successfully, she tried very hard to manage a third. There were five eggs, but she rejected one of them soon after it was laid, so that she had only four to take care of. After the usual time had passed, I examined the nest, and found only one little canary just hatched, and not at all strong. Next day I found that it was dead, and removed it. A day or two afterwards, my attention was drawn to some eccentric evolutions on the part of the birds, and, on a nearer approach to the cage, found that another little canary had been hatched and thrown out of the nest. The birds were trying as usual to shake it into life.

After that disaster, Nova lost heart, and gave up

any further attempts to hatch the remaining two eggs. But, before the death of her newest babies, she would not leave her nest on any consideration, not even to feed, for she evidently felt that all her powers would be required at that late period of the season. It was with the greatest difficulty that I could make her leave the eggs when I wished to see them, and when I tried to push her away, she only turned round and pecked my fingers. In the two former nests, she would go from her charge if a finger were only held near the entrance, and wait close at hand until the nest was replaced. But in this case, even personal violence sometimes failed, and I was fain to let her be, lest she should be hurt. Now that she has left her last nest, she is living a solitary life, and does not seem to hold communion with any of her two families, nor even to speak to her husband. Perhaps she may take to him next year, but with canaries, fidelity is not much in fashion.

The young birds seem to find their especial happiness in a swing perch, which I have hung in the centre of the cage, and which spins round when a bird perches on or leaves it. This peculiarity renders it very amusing during the day, and gives the birds plenty of exercise, but at night it is rather in their way. All the young birds want to sleep on it, and as there are eight of them, the perch only accommodating five easily, and six if they squeeze together, it may be imagined that for them to settle on it is no easy matter. The first four find no difficulty; but then the trouble begins, and it not unfrequently happens that, in their squabbling, they all tumble off the perch together, and have to begin afresh.

The first four always are polite, and make room in the middle for the fifth, but as there is only just room, and the perch is swinging and twisting, the bird has to be very accurate in his aim if he means to hit the vacant space. Generally, he misses it, and comes to the ground ignominiously,

and another tries his fortune. It is amusing to see them all clinging to the wires of the dome, just higher than the perch, waiting until it turns favourably for them. Sometimes the fifth bird settles on the arched wire of the perch, and slides down it until he reaches the perch itself. But even then, he has to walk over the bodies of two of his predecessors before he can reach his place. Once, and once only, I saw seven birds on that perch. How they managed to pack themselves so closely I cannot conceive; for when they were all asleep, they resembled a cylinder of feathers, with tails protruding in all directions. There was hardly any visible distinction of individuals.

As yet I have said nothing of mule canaries, or even of fancy canaries, strictly so called. Of the latter description of birds, I have nothing to say; for their constitutions are always delicate, and they are but hothouse plants. Some canary owners care comparatively little for pure-bred canaries, and rejoice in the possession of hybrids with other birds, such as the Linnet, the Chaffinch, the Yellow-hammer, the Bullfinch, the Hedge Warbler, or the Goldfinch. Of these birds, the last mentioned is the general favourite, on account of its exquisite colouring and its soft gentle notes, which correct the ear-piercing sounds that are emitted by a vigorous canary.

Indeed, the goldfinch and canary often seek each other and make up a match, when they are placed in a cage together with other finches. The young progeny are generally very beautiful birds, and the males are endowed with soft and brilliant voices. but the hens are almost entirely useless, except for show, as they seldom are known to breed.

But sterility, although the rule, has its exception, and very various results have been noticed. One remarkable instance of this exception has been so well related by Mr. Cookson, that I append his own account of his experiment.

“ In the autumn of 1838, a male bird, the produce

of a goldfinch and a hen canary bird, escaped from my aviary, and was not seen again until the following spring, when we were agreeably surprised by the re-appearance of our lost favourite, in company with a goldfinch. As the pair were inseparable, we at once suspected that they had mated, and in a few days our suspicions were confirmed by seeing them feed each other and collect materials for building.

“By watching their movements we soon discovered their nest, in a cedar-tree near the aviary. In due time four eggs were laid, which I carefully removed, and placed under a canary bird; they, however, all proved abortive. In a few days after this disappointment, a second nest was built by them in the same tree, which we left undisturbed, and the result was favourable: five birds were hatched, which I took from the nest when about ten days old, and brought up by hand; of this number, two cocks and two hens are still living.

“I am aware that hybrids in a state of captivity and restraint have not unfrequently proved prolific, when brought to pair with a mate of either of their parent stocks; but I do not remember that I ever heard an instance of an animal of pure breed in a wild and unrestrained condition by choice selecting a hybrid mate.

“The following are the results of my experiments made during this spring and summer.

“Early in the spring I paired one of these young cock birds (which I have described as being three parts goldfinch and one part canary bird) with a hen canary: a nest was soon made, and three eggs laid: the cock had, however, destroyed the nest, but I succeeded in saving the eggs, and placed them under a canary bird: of this number one young bird was hatched, which is now full fledged, and in good health. After this partial failure, a second nest was built, which shared the fate of the former one. I then removed the cock bird and turned him into the aviary,

where he almost immediately selected another canary bird as his mate.

“Upon my putting this pair into a breeding cage, a nest was formed in less than a week, and four eggs were laid. I had now taken the precaution to line the nest basket with flannel, so that although the nest was pulled to pieces, as on former occasions, the eggs escaped destruction, and upon them the canary bird is now sitting. I again removed the cock bird, and upon his return to the aviary, he at once made up again to his former mate, and she has this morning laid an egg.

“My second experiment has been made by pairing my other hybrid cock with an hybrid hen of the same nest: the result has been three eggs, one of which was hatched yesterday morning by a canary bird.

“Now, as this second pair have proved prolific (which are three parts goldfinch to one part canary bird), I do not see any reason why I may not obtain next year an equally successful result, by putting together a pair of birds (if I succeed in rearing a male and female), the produce of my first experiment; and if so, a cross breed might be perpetuated, which would be five parts canary birds to three parts goldfinches.”

The Siskin is also said to be readily paired with the canary; but the advantage of the mixture seems doubtful enough, and I certainly would not recommend it. Under any circumstances, however, I care little for mules.

CHAPTER XXIV.

HUMMING-BIRDS.

Contrasts of Structure.—Correspondences of Nature.—Feather-pictures.—Change of Tints.—Simulated Death.—Acclimatization.—Humming-birds domesticated in America.—Audubon's Account.—Webber and his Pets.—Curious Discovery.—The two Descriptions reconciled.—Spider-robbing.—Do Spiders eat Humming-birds?—Madame Merian.—Pugnacity of the Humming-bird.—Beauty of its Nest.—A curious Example of Nest-making.—How Humming-birds reach their Nests.—Their Voice.—Drab and Mud.

IN both the Old and New Worlds are to be found families of certain little birds, that from their appearance and general habits closely resemble each other, and indeed have often been confounded with each other. These are the sun-birds, and the humming-birds. It is, however, only of the latter that I intend here to speak.

The true humming-birds are, I believe, exclusively American, and do not extend much beyond the southern division of that Continent, with the exception of one or two species. In and near the tropics they are most abundant, especially in the tropical islands, and there swarm like flies.

These wondrous little creatures are especially formed for an aerial existence, and, save for sleep and nidification, seldom condescend to rest on any substance less gross than the air in which they live, and on which they were once thought to feed.

Their very formation would be sufficient proof to any reflecting mind of the customs of their life;

and it matters little whether the attention be directed to their plumage or to the less attractive skeleton.

Taking the skeleton first, the hastiest glance would be sufficient to detect extraordinary powers of flight; for the keel of the breast-bone, to which the chief wing muscles are attached, is so largely developed, that the power of the wing which those muscles move must be correspondingly great. Indeed, the breast-bone alone is nearly as large as the rest of the body. Then, as the legs, with their tiny delicate feet, are seen to be very small, even in proportion to the remainder of the bird, it is evident that the wings are to be used much more than the legs. And the long, slender, curved beak, together with the formation of the skull, shows that its mode of feeding is as beautifully provided for as the power of flight. What that mode of feeding is, we shall presently see.

Again, if we look at a stuffed humming-bird, the merest shadow of the living creature, its proportional details, which even the rude fingers of the taxidermist cannot destroy, will tell us of the objects for which these details were created. The long, sharp, sword-shaped wings, with their firmly-set feathers, the pointed head, and the whole shape of the body, inform us that the creature is intended to spend much time on the wing and to cut rapidly through the air.

For we have but to compare its form and plumage with those of other birds whose habits we know, to discover whether its mode of life has anything in common with theirs. And as we find that both shape and plumage are very similar in their formation to those of the swallow tribe, who spend the greater part of their existence in the air, it is easy enough to conclude that the objects for which they were made are also similar.

There is, however, one great distinction between the two, and that is in the shape of the beak, which in the swallows is short, wide, and opens back almost

to the eye, while in the humming-bird it is very long, slender, and in addition to its length is capable of protruding a tongue, which can be darted out to a considerable distance even beyond the beak.

The mechanism by which the tongue is worked is very curious, and is exactly analogous to that which moves the tongue of the woodpecker and the wry-neck. The slender bony supports that strengthen the organ pass over the entire head, and are finally fixed just above the upper mandible, so that the entire tongue can be shot out like a curved metallic spring, and be retracted with equal celerity.

It is not very easy to describe the details of the mechanism without illustrations, but as in every good anatomical museum there is a preparation of the head of the woodpecker, where a similar construction is shown on a much larger scale, the actual object can be seen without difficulty, and will be far better understood than a mere description.

The woodpecker uses its tongue exclusively for the capture of insects, which it extracts from their hiding-places under the bark of trees, or in the decayed wood; but the humming-bird feeds much more on liquid food than upon insects, although of those creatures it sometimes partakes, and, consequently, the extremity of the tongue is not quite the same as that of the woodpecker.

Indeed, it much resembles the tongue of the common hive-bee, and is used in a similar manner. The proboscis of the bee is furnished at its extremity with a kind of brush, by which it sweeps out the honey-juice from the flower, and then conveys it to its mouth. But the humming-bird, instead of a brush, carries a pair of spoons, and so scoops out the sweet juices on which it lives, or seizes between them the minute insects which it certainly *does* eat, in spite of the assertions of excellent naturalists; of which subject hereafter.

There can be no doubt but that in every kingdom

of creation, in every class, and even in every genus, there is a correspondence, one answering to the other, if we could but discover it. In some instances the resemblance is so close, that it is evident without the trouble of much examination, and such is the case with several insects and the humming-birds.

Certain well-known moths are called "humming-birds," from the analogy which they present to those beautiful creatures, an analogy so close, that were it not for the inferiority in colour of the moth to the bird and its superiority in size, the two creatures might easily enough be mistaken.

If one of the ordinary sphinx moths is "set" with extended wings and outstretched tongue, and by its side is placed a ruby-throated humming-bird with its wings and tongue similarly fixed, the outlines of the two would be almost identical in contour and size, although the bird is very high in the vertebrate tetrachord of the creative octave, and the insect low down in the invertebrate tetrachord.

And even the flight and the mode of feeding of the two creatures are similar.

The flight of both is rapid, darting, and so swift as to elude the eye; while they both feed on the wing, by hovering before the chosen flower, and then extracting the sweet liquid from its interior recesses by means of the long and retractile tongue.

There are also many flies, commonly called "hoverers," and scientifically Syrphidæ, whose mode of flight is much the same as that of the humming-birds, and some called Bombylidæ, who feed in just the same way, suspending themselves in the air before the plant on which they feed, and thrusting their tongue down to the bottom of the flower.

Indeed, a very fair notion of the flight of the humming-birds may be obtained by watching that of the hoverer flies. They dart through the air with such lightning velocity, that the eye fails to follow them, and suddenly appear quite still, balanced by the

swiftly-vibrating wings, which are seen but as a misty cloud, so rapid is their movement. So it is with these birds, and, like the insects, they produce a "hum" by the vibration of their wings, from which sound they derive their name.

Of the colours of the plumage, it is impossible to speak, because description without comparison is nearly impracticable, and we have no tints in this country to which to compare them. The birds are often called living gems, and that term is perhaps the best that can be found. For, even the stuffed skins—which resemble the living birds about as much as the "guys" carried about on the fifth of November resemble Guido Fawkes, whom they are supposed to represent—are so full of gorgeous beauty, that no pen can describe them, and no artificial tints even feebly imitate them.

For, putting out of the question the pinched and withered aspect that dried skins always assume, especially about the head and legs, and general set of the feathers, each feather-fibre is charged with several tints according to the direction of the light, and thus, when the bird is living, each respiration causes every imaginable colour to flash from every feather and fibre, until the little bird appears to be bathed in resplendent living light.

We have but one bird, by which even a distant idea of the humming-bird may be gained, and that is the kingfisher, whose plumage affords a beautiful example of pure colour, and whose feathers glisten as it darts through the sunshine, like a flash of azure light. But it has but one sparkling colour, the azure blue, whereas the humming-bird possesses every imaginable shade of tint, from fiery scarlet to emerald green. Indeed, these little birds appear as if made of coloured light—no wonder that they were supposed to live on air.

A nation so polished as the ancient Mexicans would not permit these wondrous little creatures

to be flitting around them, without applying them to artistic purposes. With the plumage of humming-birds they were accustomed to decorate their state robes, and the royal mantles composed almost entirely of these resplendent plumes must have presented a mass of glowing magnificence, which no imperial robe of the present day could even approach, and whose refulgence the eye could hardly support.

These brilliant feathers were also used for pictorial as well as for decorative art. Knowing well that no artificial tints can rival the natural colours of the humming-bird, some bold artist conceived the idea of using feathers instead of paint.

Many specimens of this exquisite art are in existence, and one of the finest is now in the Ashmolean Museum at Oxford. It is an oval picture, about three inches in length, representing Christ bearing the Cross, surrounded by mocking soldiers, sorrowing relatives, the expectant crowd, and Calvary in the distance. There are very many figures, and even if it were a painting on ivory, the beautiful management of the subject would be deserving of admiration. But when, on a close inspection, the whole is seen to be composed of particles of brilliant feathers disposed with the most consummate art, admiration is superseded by wonder.

The feathers of the trogons were used for similar purposes, especially those of the resplendent trogon, two feathers of whose tail were formerly in the same collection, and stated in the Tradescant Catalogue to be two feathers of the phoenix's tail.

It seems to be an universal law in nature that nothing is perfect at once, and that law is carried out even in the tinting of the humming-birds. In their first year, their feathers are quite sober in hue; in their second, the future tints begin to show themselves, and it is not until the third year that the bird blazes forth in its full beauty.

Bold, and yet delicate creatures are they, and when

taken, even if caught in the soft silken gauze of a butterfly net, they have been seen to die before a hand had even touched them. Yet that death is often but simulated. Many creatures, whether quadrupeds, birds, or insects, will sham dead with singular pertinacity, and the humming-bird is among the number. So it may often have happened, that a bird, which was apparently dead, was in reality as full of life as its captor, and when cast aside, took to flight, rejoicing in the success of its stratagem.

It is a pity that as yet no attempt to acclimatize these birds in England has had any permanent success. They have been several times brought over in perfect health, but never seem to have lived more than a few months at most. Perhaps, when steamers can double their rate of speed, we may be more fortunate.

Their invariable death here is the more singular, because in their own land they seem to be much more hardy than is generally imagined, and have even been seen in *Tierra del Fuego*, sporting on the wing in the midst of a shower of snow. So that it is not the cold only that kills them.

I should fancy that if a suitable aviary were fitted up for them on the south coast of England, say in Devonshire, and a large importation brought over by a swift steamer, some at least might survive the journey and live. It would be a charming occupation for any one who had the means and the time, and should such a person care for fame, he would assuredly earn it. The leaf-insect has been successfully reared in Britain, and why not the humming-bird? And if the new comers could only be induced to set up their tiny nurseries, their offspring might be expected to endure successfully the climate in which they were born.

In America, they have, I believe, been often kept in confinement. Audubon mentions such a circum-

stance, and probably hits upon the very point on which the balance of success or its contrary turns.

“I have seen many of these birds kept in partial confinement, when they were supplied with artificial flowers made for the purpose, in the corolla of which water, with honey or sugar dissolved in it, was placed. The birds were fed on these substances exclusively, but seldom lived many months, and, on being examined after death, were found to be extremely emaciated.

“Others, on the contrary, which were supplied twice a day with fresh flowers from the wood or garden, placed in a room with windows merely closed with musquito netting gauze, through which minute insects were able to enter, lived twelve months. at the expiration of which time their liberty was granted them, the person who kept them having had a long journey to perform. The room was kept artificially warmed during the winter months, and these in Lower Louisiana are seldom so cold as to produce ice.

“On examining an orange-tree which had been placed in the room where these humming-birds were kept, no appearance of a nest was to be seen, although the birds had frequently been seen caressing each other. Some have been occasionally kept confined in our middle districts, but I have not ascertained that any survived a winter.”

Audubon is here speaking of the ruby-throated humming-bird.

Now this account opens out a curious question, because there is great controversy respecting the food of these beautiful little birds, and although the difficulty of decision between doctors is proverbial, to decide between naturalists is still more difficult, for if twenty observers see the same fact, they will probably draw from it precisely twenty different inferences.

Audubon was a practical naturalist, and asserts

that humming-birds eat minute insects. Darwin dissected many specimens obtained from different quarters, and in the stomach of every one he found fragments of the wings of minute flies, which by the aid of the microscope were found to be probably those of insects belonging to the gnat tribes.

Webber, on the contrary, also a practical naturalist, denies most positively that the ruby-throated humming-bird eats any insect at all, but that at certain intervals it picks tiny spiders out of their webs and eats them. I don't pretend to decide between them, but I will give his own account as it stands, for it is very lively and graphic, and afterwards compare with it a narrative by another author well known in the ornithological world.

The following passages contain the history of some pet humming-birds. I must first premise that to find the nest and young of a humming-bird had long been a cherished object, and had not for several years been favoured with success; but at last—

“Chance favoured me somewhat strangely about this time. I had been out squirrel-shooting early one sweltering hot morning, and on my return had thrown myself beneath the shade of a thick hickory near the bank of a creek. I lay on my back, looking listlessly across the stream, when the chirp of the humming-bird and its darting form reached my senses at the same instant. I was sure I saw it light upon the limb of a small ironwood tree that happened to be exactly in the line of my vision at that instant.

“This tree leaned over the water a considerable distance. I thought of Le Valliant, and watched steadily. In about five minutes another chirp, and another bird darted in. I saw this one drop upon what seemed to be a knot on an angle of the limb; I heard the soft chirping of greeting and love. I could scarcely contain myself for joy. I would have given anything in the world to have dared to scream

‘I’ve got you, I’ve got you at last.’ By a great struggle I choked down my ecstasy and kept still.

“One of them now flew away, and after waiting fifteen minutes, that seemed a week, I rose, and with my eye steadily fixed on that important limb, I walked slowly down the bank, without, of course, seeing where I placed my feet. But the highest hopes are sometimes doomed to a fall, and a fall mine took with a vengeance. I caught my foot in a root, and tumbled, head foremost, down the bank into the water.

“I suppose such a ducking would have cooled the enthusiasm of most bird-nesters, but it only exasperated mine. I shook off the water, and vowed I’d find that nest, if it took me a week. But how to begin was the question. I had lost the limb, and how was I to find it among a hundred others just like it?

“The knot I had seen was so exactly like other knots upon other limbs all around it that the prospect of finding it seemed a hopeless one; but ‘I’ll try, sir,’ is my favourite motto. I laid myself down as nearly as possible in the position I originally occupied; but, after some twenty minutes’ experiment, came to the conclusion that my head had been too much confused by the shock of my fall and ducking for me to hope to make much out of this method. Then I went under the tree, and, commencing at the trunk with the lowest limb, which leaned over the water, I followed it slowly and carefully with my eye out to the extremest twig, noting carefully everything that seemed like a knot. This produced no satisfactory result after half-an-hour’s trial; and, with an aching neck, I gave it up in despair, for I saw half-a-dozen knots, either one of which seemed as likely to be the right one as the other.

“I now changed my tactics again; and ascending the tree, I stopped with my feet upon each one of

these limbs, and looked down along its length. It was a very tedious proceeding, but I persevered.

"Knot after knot deceived me; but at last, when just above the middle of the tree, I caught a sharp gleam among the leaves of gold and purple, and, looking down upon the last limb to which I had climbed, almost lost my footing for joy when I saw, about three feet out from where I stood, the glistening back and wings of the little bird just covering the top of one of those mysterious knots—that was about the size of half a hen's egg. Its glancing head, long bill, and keen eyes, were turned upwards and perfectly still, except the latter, which surveyed me from head to foot with the most dauntless expression. It seemed not to have the slightest intention of moving, and I would not have disturbed it for the world; it was sufficient delight for me to gaze on my long-sought treasure. Its pure white breast—or throat, rather, for the breast was sunk in the nest—formed such a sweet and innocent contrast with the splendour of its back, head, and wings!

"This is the most common variety with us, and is about a size larger than the scarlet-throat. I shall venture to call this variety the emerald hummer. I could see that this wonderful little creature had not only formed the outside of its nest to correspond in shape and size with the natural knots on other limbs, but had so skilfully covered the outside with the same kind of moss which grew upon them, that no eye, however practised, could have discovered the deception from beneath.

"Having gratified my curiosity as far as prudent, without running the risk of driving her from the nest, I descended cautiously, and ran home with the news; and great was the joy thereat between my little playmates and myself.

"Now came the anxious time for us; we were dying to get a sight of the eggs, and yet afraid to disturb the birds. I conquered this difficulty at last

by patience. I found, after watching for several mornings, that they both left the nest on warm days about noon, and were gone sometimes near an hour.

"We took this opportunity; and, having climbed up first, so as to show her, my sister followed—the girls used to climb like squirrels in Kentucky in my young days!—and many were the expressions of childish delight as she peeped over and saw those three little eggs, about the size of black-eyed peas, lying like snowy pearls (if not diamonds, as I used to expect), imbedded in a fairy case, all lined with cygnet-down, or the delicate floss of elfin-hair. We did not touch, or even breathe on it, and descended quickly, lest the old bird should find us there.

"I was unexpectedly compelled to leave home about this time, and my sister promised that she would not disturb the nest till my return.

"After an unexpected detention of two weeks, I got back, and the first thing the next morning we were on our way, with many misgivings, to visit our treasures. I climbed the tree, and to my infinite astonishment, two birds entirely filled the nest, and in such full size and perfect plumage that I thought I must have come too late, and that these were the old ones. They looked at me as boldly as I have seen young eagles look unflinchingly on the intruder into their eyrie.

"I determined to attempt the capture, at any rate, and reached my hand towards them with a gradual and almost imperceptible movement. They watched its approach with no sign of fear, and when I had approached it within an inch, one of them boldly pecked at it as it descended, gently covering them as they sat.

"I shouted for joy, 'I have them! I have them!' and then such dancing and clapping of hands as there was below. 'Hurry! hurry! brother! I want to see them! I want to see! I want to see!'

“For a wonder, I got down without breaking my neck. I had, with slight violence, taken the nest, with the birds, from the limb entire. They made not the slightest effort to escape, nor did they seem in the least frightened. We hurried away, lest we should witness the sufferings of the bereaved pair, whom we had thus ruthlessly robbed of home and young.

“The first thing on reaching the house with our captives was to try our nectar of the home-made manufacture, upon the young strangers, who instantly paid us the compliment of recognising its merits in a hearty draught, which seemed to set them perfectly at ease with the world and with themselves. They now left the nest, and perched upon our fingers, with the most lovely confidence, and we saw that they were actually full plumed,—though I doubt if they had yet attempted to use their wings abroad.

“They seemed to take the sudden change in their surroundings with a most consummate people-of-the-world sort of air, just as if they had been taught to consider it as ungentle to look surprised or startled at anything, or to exhibit more than a very cool sort of curiosity. We were greatly amused at these aristocratic airs, and we were ourselves very curious to know what might chance to be the titles of our noble friends in their own principality of air.

“Much as they made of themselves, I thought our ruby-throat received them with a certain degree of hauteur, which was responded to with the most supercilious indifference at all consistent with perfect good breeding. A few days, however, sufficed to break down the icy crust of formality, and they began to appear most guardedly aware of each other's existence.

“In a few weeks we hung the cage out with open doors again, finding that all the birds were beginning to mope and look as if they were going to die, as

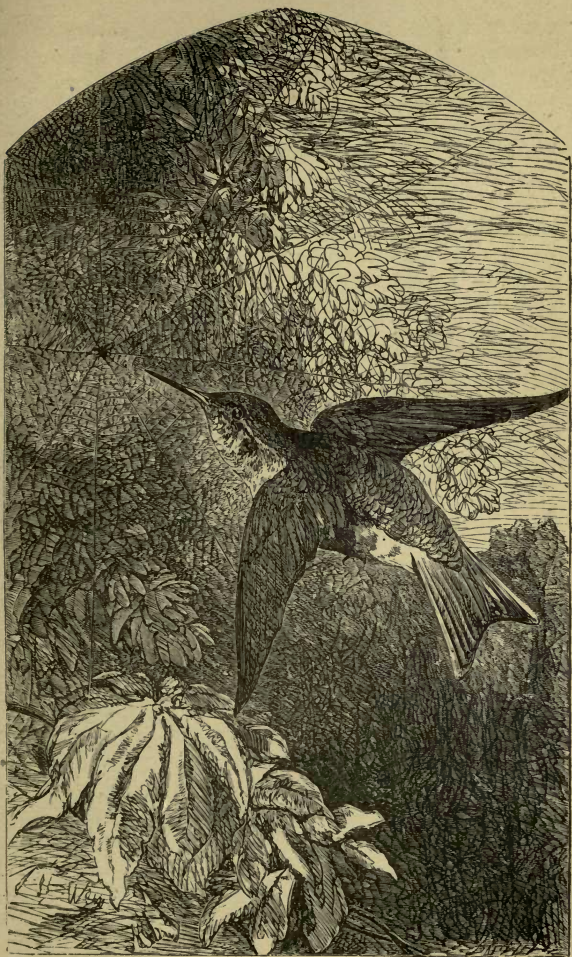
had been the case with the ruby-breast several times before. He had always been relieved by letting him out; but, as he instantly disappeared, we could not discover what the antidote he sought might be. When we opened the cage this time, it was a bright summer morning just after sun-rise.

“What was our surprise to see the ruby-throat, instead of darting away as usual, remain with the young ones, which had immediately sought sprays, as if feeling a little uncertain what to do with themselves. Scarlet flew round and round them, then he would dart off to a little distance in the garden, and suspend himself on the wing for an instant, before what I could not at first perceive to be anything more than two bare twigs, then he would return and fly around them again, as if to show them how easy it was.

“The little bold fellows did not require long persuasion, but were soon launched on air again, and in a moment or so were using their wings—for all we could see—with about as much confidence and ease as Mr. Ruby-throat.

“They, too, commenced the same manœuvres among the shrubbery, and as there were no flowers there, we were sadly puzzled to think what it was they were dipping at so eagerly, to the utter neglect of the many flowers, not one of which they appeared to notice. We moved closer to watch them to better advantage, and in doing so, changed our relative position to the sun.

“At once the thing was revealed to me: I caught friend Ruby in the very act of abstracting a small spider, with the point of his long beak, from the centre of one of those beautiful circular webs of the garden spider, that so abounds throughout the south: the thing was done so daintily, that he did not stir the dew-drops, which, now glittering in the golden sun, revealed the gossamer tracery all diamond strung.



HUMMING-BIRD FEEDING.

“‘Hah! we’ve got your secret, my friends!—hah! hah! hah!’ And we clapped and danced in triumph.

“Our presence did not disturb them in the least, and we watched them catching spiders for half-an-hour; they frequently came within two feet of our faces, and we could distinctly see them pluck the little spider from the centre of its wheel, where it lies, and swallow it entire.

“After this we let them out daily, and although we watched them closely, and with the most patient care, we never could see them touch the spiders again until the usual interval of about a fortnight had elapsed, when they attacked them again as vigorously as ever, but the foray of one morning seemed to suffice.

“We also observed them carefully, to ascertain whether they ate any other insects than these spiders, but although we brought them every variety of the smallest and most tender that we could find, they did not notice them at all; but if we would shut them up past the time, until they began to look drooping, and then bring one of those little spiders along with other small insects, they would snap up the spider soon enough, but pay no attention to the others.

“We were thoroughly convinced, after careful experiment upon two families of them, that they neither live entirely upon the nectar of flowers—as all the old naturalists supposed—nor upon *various* small insects in addition to the nectar, as Mr. Audubon asserts: the fact is, they can live no more beyond a certain time—about a fortnight—upon nectar alone, than they can upon air alone, nor do I believe that life would be preserved beyond a few days upon spiders alone.

“There is another rather curious observation we made, that so long as the white cup was not dry, for so long they did not condescend to notice the thousands of flowers by which they were surrounded.”

These accounts appear to be exactly contradictory

to each other, but are in reality not so. There is no reason why humming-birds in general should not eat various insects, simply because certain individuals restricted their appetites to spiders. And it must be a fair inference, that when a large number of insect wings are found in the stomach of a bird, the insects to which the wings belonged must have been eaten by the bird.

If not, we discover a new fact in natural history, namely, that either winged insects are in the habit of walking into the interior of birds without the connivance of the birds in question, or that the stomach of birds is the natural habitation of those winged insects, where they are born, live, and die, leaving only their comminuted wings behind them, for the express purpose of puzzling naturalists, as these organs could not have been of the least use to them in so confined a situation.

Besides, these birds have been seen in the very act of eating insects, and by several observers. Take for instance the following account by Mr. Bullock, of the proceedings of a humming-bird in Mexico.

"From the edges of the house-tiles to the branches of the trees in the garden, the spiders had spread their webs so closely and compactly, that they resembled a net.

"I have frequently watched with much amusement the active peregrination of the humming-bird, who, advancing beneath the web, enters the various labyrinths and cells in search of entangled flies, but as the larger spiders did not tamely surrender their booty, the invader was often compelled to retreat: being within a few feet, I could observe all their evolutions with great precision.

"The active little bird generally passed once or twice round the court, as if to reconnoitre his ground, and commenced his attack by going carefully under the webs of the wily insect, and seizing by surprise the smallest entangled flies, or those which were

most feeble. In ascending the angular traps of the spider, great care and skill were required; sometimes he had scarcely room for his little wings to perform their offices, and the least deviation would have entangled him in the complex machinery of the web, and involved him in ruin. It was only the works of the smaller spiders he durst attack, as the largest rose to the defence of their citadels, when the besieger would shoot off like a sunbeam, and could only be traced by the luminous glow of his refulgent colours.

“The bird generally spent about ten minutes in this predatory excursion, and then alighted on a branch of an *avocata* to rest and refresh himself, and presenting to the sun his crimson, star-like breast, which then represented all the glowing fire of the ruby, and surpassed in lustre the diadem of monarchs.”

The mention of the spiders naturally brings us to another disputed question, which is precisely the reverse of that which has just been discussed, for the question is now whether spiders eat humming-birds, and not whether humming-birds eat spiders.

Now, some humming-birds are so very tiny, being hardly as big as a full-sized hornet, and some spiders are so very large, covering a space equal to the spread human hand, that there can be no doubt of the possibility of such a circumstance, so far as mere physical strength goes.

There are then left two questions, the first, whether the spider could catch the humming-bird; and the second, whether the instinct of the spider would permit it to feed on the bird.

As to the first question, this is easily enough settled; for any one who has seen the common hunting spider steal upon and capture house-flies, which are quite as active and sharp-sighted as humming-birds, will find no difficulty in comprehending that a spider could in a similar manner creep up to, and then spring upon, a bird. And if it succeeded in doing so, the terrible reservoir of poison with which

those large spiders are armed would very soon cause death to so tiny and delicate a creature as the humming-bird. I have known a large garden spider to bite the hand of a lady, and to cause rather an alarming swelling of the hand and arm; so that when the poison is magnified and the victim diminished, the effects may be imagined.

But in my opinion the real point at issue is that contained in the second question, whether or not the spider's instinct permits it to prey upon birds; and this point cannot be fairly decided without careful observation.

I should be glad to see a collection made of these mooted points, and competent observers sent out for the express purpose of deciding them.

Most of these difficulties are respecting tropical creatures, and if two or more real lovers of nature were sent to tropical countries with special instructions to observe for a given time, say three years, noting every fact, and reporting their notes of the facts every time that they occurred, the comparison of their note-books would set the question at rest, besides furnishing many valuable and interesting additions to our knowledge of creature instincts and reason.

Madame Merian states that the spiders feed mostly upon ants, but that when the ants are insufficient in number, the spiders climb the trees, drive little birds out of their nests, and suck all the blood out of their poor little bodies. And in her very harrowing illustration of the fact, the spider is represented crouching on the body of a humming-bird, while its nest affords a support to one of the legs of its murderer.

On seeing this drawing, one is irresistibly reminded of the tragical fate of Tom Thumb, who was cruelly slain by a great spider in spite of his courage. I wonder whether Tom Thumb was metamorphosed into a humming-bird after his death. If not, he ought to have been, and Queen Mab has treated us

very badly in neglecting so evident a conclusion to the adventures of her favourite. For his garments, made of butterflies' wings, are easily enough transformed into feathers, and his needle-sword into a sharp bill.

Perhaps it was so after all, for the characters of the humming-bird and of our friend Tom Thumb are very similar, and being very small, they are of course pugnacious to a degree, and ignore fear altogether.

I have already mentioned the fact that a humming-bird has been seen to attack and defeat the eagle himself, and one individual, not so large as many bees, chose to take possession of a certain spot in a garden, and having taken, kept it.

He was utterly indifferent to the presence of human beings, who would have frightened away many a bigger bird; but if a bird of any kind or size ventured near the tree which he was pleased to call his own, that bird he invariably attacked, and as invariably drove it away, always returning to the same twig, which he had worn bare of leaves by constantly perching upon it.

The nests of all the humming-birds whose nests have been found and identified, are very pretty specimens of bird architecture. As may be imagined, they are very small indeed, and the birds display such exceeding skill in the choice of locality and the materials with which they cover the exterior of the nest, that a very sharp eye is required to discover them. The body of the nest is always made of some very soft substances, suitable to the tender creatures that are to inhabit it, mostly of thistle or cotton down, and the exterior is covered neatly with lichens and similar objects, which are chosen of the same character and colours as those in the neighbourhood of the nest, and are fastened with spiders' webs woven over and among the former substances.

It is remarkable that the lichens are never turned

the wrong way, but are placed in the nest just as they grew on the branches.

The eggs are only two in number, and although rather larger than might be imagined from the size of the bird, are very small indeed. They are of a delicate, slightly pink, semi-transparent white colour, and have been well compared to pearls.

I very much regret that, in more than one instance, I have seen humming-birds' nests exposed for sale, in which have been placed three or more eggs of our little golden-crested wren, in the hope of deluding purchasers with the idea that they were the original eggs. And there is on record a case, when a new species of humming-bird was sold, and, after it had been described and named, was discovered to be only a sham, sundry strange feathers having been inserted into its genuine plumage, those of certain parrots among the number.

A very remarkable, and as far as is at present known an unique, specimen of nest-building is recorded by Captain Lyons. The little bird, having made a nest, deposited therein the usual two eggs. But when the little birds were hatched, they were found to be too large for their cradle, and so the mother-bird gradually enlarged the nest as the young increased in size, until the nest, which was at first nearly flat and saucer-shaped, assumed the form of a tea-cup.

The difficulty of finding these little nests is increased by a curious habit possessed by some of the humming-birds. When they leave or approach their home, they do so, as if conscious of the many sharp eyes that are watching in every direction, and knowing that by the bright gleam of their plumage they might give an indication of the direction of their nest, they rise perpendicularly until they are out of sight—no difficult matter, wee little things as they are—and then, having arrived over the spot on which their cradle has been placed, drop down upon it as perpen-

dicularly as they ascended. And the same precaution is taken on leaving the nest as on visiting it.

It is said that the Cora humming-bird sings, but the fact has not been perfectly ascertained. They all, however, have a kind of delicate chirp, not unlike themselves. The pugnacious little fellow, of whom mention has been made, was accustomed to celebrate his own praises with a weak, simple, and oft-repeated note.

What an argument does the very existence of these gorgeous little creatures bring against certain drab-souled individuals called "pious," and certain mud-encrusted natures called "utilitarians."

I picture to myself a world such as the former party would have it.

We should have gray grass and drab flowers; the roses should smell of assafoetida, and the fruits taste of wormwood. No more should

"The lark at Heaven's gate sing,"

but, sitting sadly on the desolate moor, whine out a monotonous lament that himself and all creation were at the entrance of a precisely opposite region. Harmony should reign no longer, but discord bear the rule; the drone of the bagpipe should be the morning hymn, and every melody should be composed in consecutive fifths. So should we show, by satisfactory proof, that our senses were given us for the express purpose of inflicting upon their owners as much suffering as possible. Our sight should be created simply to be shocked, our touch to be pained, our taste to be disgusted, our hearing to be grated upon, and our nostrils to be offended. The sky should be brown, the sun darkened, and the moon should give no light. Omnibuses should be fitted up like hearses, and the supply of brown pocket-handkerchiefs should be insufficient to dry the tears that should everlastingly trickle down all noses.

I confess that I don't see any very great piety in

closing the senses to the beautiful objects around, and for whose reception all those senses were made, nor do I see that religion is tantamount to misery. I cannot think that a gothic cathedral is "carnal" because its windows are stained with the colours of those very gems of which we read that the City of the new Jerusalem is built; because its form is beautiful, its ornaments symbolic, and its spire ever pointing to the sky. Still less can I comprehend that a building is more fit for the service of Him who is in Himself the very essence and origin of all beauty of colour and form, because its substance is brick, and its chief characteristics are whitewash and rectangles.

This is the kind of piety that tells you that millions upon millions of immortal souls are constantly being created for the sole purpose of being cast into torture to all eternity. What wonder that there are infidels, when religion is brought forward in such a guise! If that be Christianity, I, for one, will not be a Christian.

Do such persons never think of their own presumptuous impiety in daring to say that anything that God made is impious? Still, if they conscientiously think that all things lovely and sweet and beautiful are irreligious, let them think so and welcome, but not interfere with us, who know better. And if they find their happiness in drab, let them be drab and happy. But let us with every sense, and every feeling, and every power, thankfully drink in the beauty that is poured forth with so lavish a hand; and yet seeing in it all only a shadow and an earnest of more beautiful things yet to come.

As to the second class of individuals, who are always asking of what *use* a beautiful object is—for them language contains no epithet sufficiently contemptuous. I always feel tempted to answer—and have done so once or twice, to the extreme horror of my interlocutor,—“Pray, sir, of what use are *you*?” It generally seems to be a new idea.

For they have no conception of the useful, save that which benefits themselves and their own low, groveling, selfish ends. Beyond earth, and things earthy, they have no thoughts, no wishes, no aspirations ; of the earth they are, and of the earth they speak. And when things lovely, and precious, and enduring, are brought before them, they trample upon and condemn them, precisely as swine condemn pearls.

Still it is some consolation to think that pearls are precious, even though the swine condemn them.

Let chains of arguments be forged, many in number as the sands of the sea, strong as the strongest steel, against the love of beauty, and they fall to pieces before the perfume of the rose, the song of the lark, or the plumage of a butterfly, even as the prisoner's fetters at the touch of an angelic hand. Stand out, little Ruby-throat ; spread your plumage to the sun, flash the rainbow light from your glittering feathers, and be a silent answer to the drab and the mud. For he who cannot be convinced by such a sight will never be convinced by words.

CHAPTER XXV.

OSTRICHES.

Contrasts of Structure.—Legs of the Ostrich. Its Means of Defence.—Wings of the Ostrich.—Running against Wind.—The Camel-bird.—Ostrich Plumes.—How procured.—Cunning of the Bosjesman.—Ostrich-Stalking.—Arrow-poison.—Latet Anguis in Arenâ.—Brains *versus* Legs.—Practical Mathematics.—Getting the “Wind” of the Birds.—Speed of the Ostrich.—Fury of the wounded Ostrich.—Singular Use of Ostrich Plumes.—Mobbing to Death.—Knob-kerries.—Curious Treatment of the slain Ostrich.—How to preserve Ostrich Plumes.—Spur-quills of the Wing.—Use of the preserved Skin.

No two birds can afford a more decided contrast than the Ostrich and the bird whose habits we have just noticed. The one is the tiniest of the feathered tribes, and the other is the largest at present known to exist. The humming-bird is created expressly to pass an aerial life, and all its structure is in entire accordance with its habits. Similarly, and yet differently, the ostrich, with all its tribe, is essentially a terrestrial bird, and its form is as terrestrial as its nature.

For example, the legs and feet of all the humming-birds are even smaller than might be imagined from the very minute size of their owners, because the perch is but a relaxation after their hours of constant flight.

But in the ostrich the legs are enormously developed, their bony scaffolding is thick, heavy, and solid, and their length is such that it is a common circumstance for the bird to exceed eight or nine feet in height, and specimens have been found even

reaching to the height of eleven feet. This height is, it must be remembered, equal to that of most elephants.

This statement seems rather startling, but it is proved by the catalogue of the College of Surgeons, where eleven feet is recorded as the height of an ostrich from whose body several preparations were formed. But the usual height is about seven or eight feet, and that is tolerably high for a bird.

On dissecting the legs of an ostrich, the attention is immediately drawn to the array of glistening tendons which play, like so many steel bands, along the bones and under the tough skin that encircles the leg. No wonder that the creature can run so fast and so long, when it is furnished with such powerful means of progression.

Some idea of them may be formed from the tendons found in the leg of the pheasant, one of our running birds. But the pheasant can fly as well as run, and so the tendons of the legs are not even proportionately so powerful as those of the ostrich. Make these tendons double their size and strength, then magnify the bird until it becomes some eight or nine feet high, and thus a tolerable idea may be obtained of the power of those tendinous bands that give force to the ostrich's leg. And at the joints, and indeed along the greater part of the leg, there is a tendinous sheathing of sufficient strength to prevent these cords from bursting through the skin by their own force.

But these legs can be used not only for flight, but for defence. When attacked closely, the ostrich has a way of kicking at its adversary with these formidable legs, and often inflicts severe injury by the claw of its foot, which is sharp and angular. A man has been killed by a single blow from one of these weapons. Curiously enough, it delivers the stroke forwards, so as to attack an advancing foe, and does

not kick backwards, as a horse does. And when running, it can throw up the pebbles with its feet at every stride, and discharge a constant series of volleys against its pursuer, about whose ears they rattle like so many shot.

Then, as the creature is not intended to fly, the wings are limited to the smallest dimensions consistent with the office which they have to perform. They may be aptly compared to the fore-legs of the kangaroo, the jerboa, or any of the leaping quadrupeds, and are quite as small in proportion to the highly-developed hinder limbs.

The only use to which the wings seem to be put is, to balance the ostrich in its swift course, and, by a constant flapping and quivering, to preserve that accuracy of equilibrium which is necessary when an animal of such size presses forward with the speed of a railway engine.

It is generally said that the use of the wings is to catch the wind, and so to aid the bird in its progress. But as far as I see, nothing can be more erroneous; for, when pursued, the ostrich always runs *against* the wind, and never with it. Most, if not all, wild animals have the same habit, because the scent of their enemies is carried down the wind, and so they are at once warned of the presence of a foe.

And even if proof were wanted of this error, there is a very sufficient one in the fact that the ostrich goes much faster than the wind, at all events than such a wind as would blow during a chase. The speed of an alarmed ostrich is sixty miles per hour. Now, a wind that blows at the rate of even fifty miles an hour is classed among the hurricanes; and if it were to blow at a rate exceeding the speed of the ostrich, bird, horse, and rider, would be dashed to the ground by its force, and hurled before its breath as helplessly as feathers in the breeze.

So that, for the ostrich to catch the wind with its

wings would be about as sensible as to carry all sail in a five-knot breeze, while the vessel was steaming at fifteen miles an hour.

As, then, the wings are not used for the purpose of raising the bird into the air, their muscles are very little developed, and, as a natural consequence, the deep keel on the breast-bone, which is so conspicuous in the humming-bird, is altogether wanting in the ostrich, whose breast-bone is as flat as that of man.

The whole form of the ostrich skeleton is singularly like that of the greyhound, especially if viewed from behind. There is the same little head and long slender neck, the same breadth of chest, and the same wide arch of the pelvic bones, giving such strength to the hind quarter.

It also bears a decided resemblance to the skeleton of the camel, if viewed in the same way, and justifies its title of camel-bird, given to it by the Orientals. The Greeks called it "*struthocamelus*," a compound term, which signifies bird-camel. And the Persians still imagine that the ostrich is produced by a mixture of the camel with the bustard, or some similar bird, just as the giraffe was thought to be a cross breed between the leopard and the camel.

A most useful, and also ornamental, bird is the ostrich to the African tribes among whom it lives. We, however, discard the useful portion, and only retain the ornamental. For those beautiful plumes that are accessories to so many state occasions, and wave over the coronet of the Prince of Wales, are all taken from the wings of this bird. They are certainly beautiful ornaments; and even though the wearing them be a relic of barbaric or savage life, let them still be worn. As it is, the greater part of our clothing is derived from the natural covering of animals; and as Alphonse Karr observes:—

"Your grandest and most splendid attire is composed of the shreds you steal from one or another—from sheep and from silkworms.

“Observe that woman now passing. Yesterday she was mild and good; to-day, you see, she is haughty and insolent. What has created this change in her? Nothing: only she has upon her head a feather plucked from the tail of an ostrich. How proud that ostrich ought to be, which has so many more, and all its own!”

These feathers are procured in various ways; sometimes by hunting the ostrich, but more often by purchasing them from the native tribes, whose ready craft supplies the place of superiority of weapons. And of all the tribes that are successful in the feather hunt, the little insignificant Bosjesman is, perhaps, the most successful. The mode which he employs is so singular, and so clever, that it is worthy of narration.

He first takes a dead ostrich and skins it, cutting off the legs, but leaving the remainder of the skin entire. The neck is so fitted up with a stick running through it, that it can be moved about easily by a person holding an end of the stick in his hand. The skin of the back is then strained over a kind of saddle, and left to dry.

When thoroughly hard and dry, and there are ostriches near, the tiny hunter fits the feathered saddle on his back in such a way that, when he stoops, the neck of the stuffed bird is erect, and he can hold the end of the guiding stick in his hand. He takes with him his bow and a supply of poisoned arrows, and after rubbing his black legs with some white substance, goes off towards the unsuspecting ostriches.

By means of the stick he manœuvres the neck of the ostrich-skin as if it were animated by the bird itself; sometimes stooping it towards the ground as if pecking at something, sometimes turning the head from side to side as if the bird were looking out for foes.

And so well does he imitate the action of an ostrich, that those who have seen the performance

declare that it is almost impossible to distinguish between the false bird and the true.

On he goes, now and then stopping, but always drawing nearer and nearer, until he gets among the birds. Down goes the neck, out comes an arrow, and, in a moment, one or more of the ostriches has a poisoned dart in its body. The wounded birds start, give the alarm, and away they run, the Bosjesman after them, just as if he were one of themselves, and quite as frightened.

About the birds that have been struck he does not trouble himself; for he knows well enough that, even if the wound were no more than the scratch of a pin, it would be as surely the death-blow as if the arrow had gone through the heart: it is simply a question of time. So, by industriously keeping up the deception, the cunning little fellow lays low many a swift and wary bird, who would laugh at the speed of a racehorse, and could annihilate, with a single kick, its small and formidable foe.

The arrows, by the way, are curiously constructed. They have no feathers, and the points are of bone, fitting loosely into the shaft, so that when the animal is struck, the shaft is shaken off by its struggles, leaving the poisoned point in the wound. These bone-tips are pointed at each end, but only one end is poisoned; and when not immediately required for use, the bony point is carried with its unpoisoned end outwards, so as to guard against accidents. When, however, danger is near, or prey is to be pursued, the tips are reversed, and then the Bosjesman becomes more dangerous than a nest of cobras.

It is rather a remarkable circumstance that the poison with which the arrows are charged does not injure the flesh of the animals killed by its effects, although it must necessarily mix with the blood, and course through every portion of the victim. Such is also the case with the venom of snakes, of which, indeed, the arrow-poison is chiefly composed. It is

a well-known fact that this secretion may be swallowed with impunity, while if it even mixes directly with the blood by so much as the scratch of a pin, death is the inevitable result.

Now this is a more curious phenomenon than is generally supposed; for, whether the substance in question be introduced to the blood by direct means, or whether it passes into the blood indirectly by the process of digestion, the ultimate result is the same. There is, therefore, in the living laboratory of the nutritive system some wondrous process of chemistry that destroys the noxious effects of a substance when brought under its sway, and renders it harmless to the blood, which it is its mission to form; although, if introduced to the same blood without passing through the digestive process, it paralyses the very life, stagnates the blood, and stills the beating of the heart.

There is another plan adopted by the Bosjesman that does not require so much craft and exertion as that just mentioned. When he discovers an ostrich-nest, and does not care about a lengthened supply of eggs, he waits for the absence of both birds, and then creeping up to the sand-heaped nest, scoops out a hollow in the sand, covers himself up neatly, and lies there patiently until the parent birds return to their home. When they do so, in some three seconds, each of the birds has received a poisoned dart, and soon succumbs.

Springes are also employed for the purpose of ostrich-catching, and are made in a manner almost identical with those which we employ in England for the capture of less noble game.

European hunters, however, not having the patience or the cunning of the savage, take the more manly view of the case, and hunt the ostrich by fair riding.

Now, an ostrich walks away from a horse much as a steamer walks away from a sailing vessel in a light wind, and were it a mere stern chase, the ostrich

would never be caught. But when brains are pitted against legs, the scales are generally turned; and so it is in this case. Repeated observations have shown that an ostrich always runs against the wind, and not with it, so that, when the direction of the wind is known, the course which the bird will take is known also. Moreover, this bird does not usually take a direct course; but bears up so as to describe a segment of a very large circle.

Now it is a contest of legs versus brains. The legs, when their owner takes the alarm, ply themselves with all the celerity practicable, and run off in their curved path. Brains, however, knowing that the chord is shorter than the arc, choose the chord, and so make up for the difference of speed.

In plain terms, when an ostrich is started, the hunter does not attempt to follow it, but getting his horse to speed, he makes a short cut to the spot for which he knows the bird will make. Having arrived there, he leaps from his horse, and, as the ostrich runs past, he gets a fair broadside shot, which tumbles the bird over.

The great object of the hunter is therefore to work up well to windward of the birds before he alarms them, as then he is sure to be on the short line. And even if he is ahead of them, they run up the wind, so that he can generally make sure of his bird, if he knows how to manage. If he should see the birds on the wrong side, he has to make a wide *détour*, in order to cross the wind out of their reach, and so to creep up to them in the proper direction.

Hunters, in those wide plains, seem to think nothing of making a circle of seven or eight miles merely to circumvent an animal which they are chasing, even if they have to crawl half the distance like so many lizards or snakes.

Some practice is required even for this process, as the ostrich scuds past with speed almost incredible; and if the marksman's hand is not quite steady, and

plenty of allowance made for the pace, the shot fails, and there is very small likelihood of another chance. And when one considers the exertion of a smart ride under a burning sun, together with the necessity of firing immediately after dismounting, it is easy to see that steadiness of hand is likely to be compromised under such circumstances, even if time were given for a deliberate aim.

Although the swiftness of the ostrich is such that, under ordinary circumstances, a horse has no chance against it, yet it is said that at the approach of the rainy season its vigour decreases sufficiently to enable a good horse to overtake it. When caught, the feathers are stripped from its wings and tail; the best are reserved for the European market, while the others are stuck round the hat as trophies, so that the apparent anomaly of a wide-awake hat, profusely decorated with ostrich plumes, is a common enough sight in the semi-civilised district near the Cape and Natal.

There is a popular saying that tells us to beware of the anger of a quiet man, and the same remark holds good with the quiet birds.

Among the fiercer quadrupeds and birds, an individual that has been wounded becomes more dangerous than when unhurt, and the severer the wound the more furious the creature, always provided that it is not paralyzed by the stroke that irritates it. A mortally-wounded lion is an antagonist more to be dreaded than one who has been only slightly hurt, and from all descriptions the dying efforts are the most terrible. It is so with the eagles, as has already been mentioned, and is so with the whales. Even the mild and gentle Greenland whale, when mortally wounded, is nearly as dangerous as the spermaceti whale, with all its huge jaws and formidable array of teeth.

The ostrich, although essentially a shy and timid bird, avoiding mankind as an Oriental avoids lepers,

yet when brought to the ground by a wound, and unable to escape, becomes animated by despair, and is straightway transformed into a furious and dangerous foe.

It plunges itself about, spins round as it lies, and lashes out in every direction with its powerful legs. No one dares then approach within its reach, for even a simple blow from its foot would break a limb, or fracture a skull. But each foot is armed with a long and sharp claw, which, when urged by the powerful limb to which it is attached, cuts like a sword blade.

In such a case it is necessary to give the *coup de grace* before approaching the prostrate bird. So, to pluck the feathers from the living bird is not quite so easy a business as might be supposed from the mild aspect of the ostrich. The object of so doing will be mentioned in a succeeding page.

Sometimes even the domesticated ostriches are liable to sudden gusts of fury, especially at the sight of strangers, and attack their real or imaginary foe with great ferocity.

There is another and rather a singular use to which their plumes are put by the Kaffir tribes. Large bunches of them are made up, something like those sable exhibitions of ostentatious folly that nod from the top of a hearse at an expensive funeral. These plumes are attached to long rods, about the size and shape of the ordinary assagy, or spear, and on peaceable occasions answer the purpose of fans. But there are circumstances in which these plume-decorated spears are made the means of saving human life.

When a band of bold Kaffirs unite for the purpose of attacking a lion, every man carries, beside his usual bundle of spears, one of these plumed rods, the other end of which is armed with a spike, but not for any destructive purpose.

Thus prepared, the band surround the lion, and

when within proper distance, one of them delivers his spear, and, as the lion rushes at him, plants his rod in the ground and springs aside. The wounded lion, blinded with rage, attacks the feathers instead of the man, and thus not only gives him time to escape, but affords an opportunity for more spears to be thrown.

Each man, as he finds his opportunity, throws his spear and leaps aside, until the lion—his strength exhausted with vain attacks, and his life-blood ebbing away from the innumerable wounds that are inflicted—slowly sinks under them, and dies.

By the time that the lion has fairly breathed his last, he has assumed somewhat of the aspect of a porcupine, or a well-stocked pincushion, from the number of spears that are sticking in his body, irrespective of those which he has torn out by his teeth, or shaken out by his struggles. For the tenacity of a lion's life is even more remarkable than that of a cat, who is popularly said to possess nine lives, and when wounded his ferocity must be seen to be comprehended. So that were it not for the timely aid offered by these plumed spears, upon which the animal expends his fury, many a Kaffir would bite the dust.

Mobbing, indeed, seems to be a favourite mode of pursuit in these regions, and the savages supply their want of suitable weapons, by their numbers and their perseverance. Savage man is generally compared to a wolf, and certainly he has this much of the wolf nature, that he will band together with his comrades, and perseveringly hunt to death an animal that he dare not oppose openly. The elephant is often destroyed in this manner, the hunters following him for days together, and fairly wearing him out by want of rest, and myriads of wounds. For, although a single well-aimed bullet will drop an elephant on the spot, he may be stuck full of spears without seeming very much the worse for it at the time.

Elephants are mobbed because they are so large, and won't die easily. Lions are mobbed because they are so fierce and strong, and ostriches are mobbed because they are so swift.

When the natives mob an ostrich, they do so very cleverly. They make a wide circle round it, and gradually inclose it. The bird becomes alarmed, and tries to run through the line, but is sent back by a knobbed stick hurled at it. As the circle decreases, the knobbed sticks fly faster and faster, until the bird is finally disabled. If possible the hunters try to drive it into water, when it falls an easy prey.

These knobbed sticks, or knob-kerries, as they are called, are most formidable weapons in a Kaffir's hand. They are formed either of some very heavy wood, or of the horn of the rhinoceros. These latter are much valued, and can hardly be purchased. There is, or was, one in Gordon Cumming's collection nearly four feet in length.

They are not generally very long, and can be used much as the ancient battle-axes, either in the light of clubs for hand-to-hand fighting, or as missiles. In this latter capacity they are much used, and can be hurled from the Kaffir's hand with a force and accuracy that can hardly be conceived by those who have not seen it. The Kaffirs will often go out armed merely with their knob-kerries, and bring in a parcel of birds, which they have killed simply by throwing these clubs at them.

There is a curious custom prevalent at the death of an ostrich. When the bird has been knocked over, the throat is cut, so as to separate the great veins and arteries, and a ligature is placed over the wound so as to prevent the blood from escaping. The bird is then rolled about, and agitated, until at last, when the ligatures are removed, a mixture of blood and fat pours out in a liquid state, and is carefully preserved. So great is the amount of this singular substance that

nearly twenty pounds weight have been preserved from a single bird

It is chiefly used for medicinal purposes.

It is said, but with what truth I know not, that feathers, plucked from the ostrich during its life, are not liable to the attacks of those little worms that are so detrimental to feathers and similar substances. The comparative cruelty or humanity of the practice is, of course, not considered at all. But, as it is a matter of some importance to those who possess these feathers, and dread the worms or the moths, I here mention a very easy way of getting rid of them, and preventing their attacks for ever.

Take rectified spirits of wine, say half a pint, and place therein about enough powdered corrosive sublimate to be taken up on the point of a penknife. Let it remain there for several hours, or a whole day will be better, in order to secure its perfect solution, taking care frequently to shake or stir it.

Then take the feather and soak it thoroughly in the poisonous spirit, letting every part have its equal share. The dry feather will suck up the spirit like a sponge, and when it is removed from the liquor it will present the most miserable and draggled appearance imaginable. Never heed its look, but just wave it about in the air, keeping it constantly on the move. Spirit soon evaporates, and in a short time the feather will resume its former appearance.

From that time it is invulnerable. Not an insect dares to put a tooth into it, and it may be left with impunity in the midst of the most moth-haunted garments and furs.

Great caution must be taken, as corrosive sublimate is very poisonous, and although the amount mentioned affords but a weak solution, yet if there is an unguarded cut on the fingers, or the eyes are rubbed with the hands before they have been washed, very unpleasant inflammation may follow. But with ordi-

nary caution there is not the slightest danger. I have thus preserved many thousands of insects and other objects without receiving the least detriment.

The solution should not be stronger than the proportions that have been mentioned, because if it is too strong, the corrosive sublimate becomes deposited in a white powder on the exterior of the object, and may be dangerous to handle. But when it is mixed according to the directions, the poison is absorbed into the substance of the feather, and there is no danger. Should, however, the mixture be inadvertently made too strong, the superabundant substance can be removed by washing the feather in pure spirit. The scientific name of corrosive sublimate is Bichloride of Mercury.

Fur, cloth, or any similar substances, can be preserved by this means. I have, as an experiment, soaked a butterfly in it, and when dry put it into a box among numerous specimens of insects that were eaten up by those detestable mites and other creatures that destroy so many fine collections. After the expiration of some months, I opened the box, and found my butterfly hidden beneath a layer of dust, fragments of eaten insects, and other substances; so that I at first thought that the experiment had failed. But, after the dust had been taken off with a camel's-hair brush, the insect appeared as bright and uninjured as it was when first placed in the box.

Camphor is just useless against many insects, for some of them have been actually known to live in the little recesses under the camphor itself. And by its evaporation it is apt to form a crust on the glass covers of the drawers and cases. To poison the atmosphere is but a temporary remedy, but to poison the substances attacked answers effectually.

The wings of the ostrich bear, beside their feathers already mentioned, two rather short, dark, sharp quills, not unlike those of the porcupine, both in appearance and texture. Their object is not at present known. The

cassowary bears five similar quills on each wing. They are curious objects, and look as if they had originally intended to be feathers, but had stopped short in their growth.

The skin of the ostrich is very strong, and, after undergoing certain processes of preserving, is used for the manufacture of shields and other portions of armour.

CHAPTER XXVI.

OSTRICHES—*continued.*

“Salmagundi.”—Contents of an Ostrich’s Stomach.—Bullet-eating.—Ducklings devoured.—Ostriches destructive to Corn.—Ostrich Eggs.—How to make an Omelet.—Egg-pebbles.—The Eggs easily preserved.—Egg-shells used as Water-jars.—Singular Stratagem.—Number of Eggs in a Nest.—Jealousy of the Parents.—Their Care of the Eggs.—Arabic Fable.—Decoy Ostrich.—Medicinal Properties of Ostrich Egg.—Medical Science.—Voice of the Ostrich.—Winged Horses.—The Spine of the Ostrich.—Wholesale Destruction.—Curious Resemblances of Structure.—Internal Water-vessel.—An Ostrich Chase.

THERE is a book of poems, hardly known so well as it deserves, called “Salmagundi.” It contains a number of clever pieces, mostly political in their tendency, and among them a rather long poem called “The Dragon of Wantley,” being an attack on the famous Wilkes. In it are the following lines:—

“Your ostrich, he will swallow brass,
And iron he loves dearly;
He’ll pick up a peck of tenpenny nails,
As cocks and hens do barley.”

An assertion which is quite as true of the ostrich, as of the all-devouring John Wilkes, who is here squib-bized. For there is hardly any substance existing that an ostrich will not swallow, and that sometimes in the most unexpected manner.

When sailors catch a shark, the first thing they do is to examine his interior, to discover what description of nutriment he may have eaten, and often turn out very curious objects indeed. Shoes, a lady’s work-box, an entire bull’s hide, several packets of needles,

and a south-wester hat, are among the substances that are recorded as having been dissected out of a shark that had been caught after following a ship for some time. And as the sailor looks with eagerness to the opening of a shark's stomach, so does an anatomist take his scalpel in hand with a flutter of pleasing anticipation when the body of an ostrich is laid before him.

I have assisted at such an operation, and have somewhere a list of the contents of that ostrich's stomach, but at present I only remember that the most prominent objects were large pebbles, several brick-bats, and a good-sized piece of deal.

The omnivorous properties of this bird were known long before any specimens were publicly exhibited in England, and, as is usually the case with oral descriptions of character, there was considerable exaggeration. For example, it was supposed that not only did the ostrich eat iron and brass, but that those metals were its constant food, and that from them it derived its nourishment. Accordingly, when an ostrich was brought over to England, people were very assiduous in supplying it with bags of new nails, all of which it ate, but, as may naturally be supposed, pined away under such a system of feeding, and soon died.

The object of taking such harsh materials into its interior is, of course, the same that actuates many birds when they eat gravel or sand. For the vegetable food, on which the ostrich lives in its native land, is of so harsh and dry a nature that adventitious aid is required, to enable the bird to grind such substances. And, therefore, the ostrich eats stones in order that they may assist the gizzard in its work of comminution.

But how the interior of any animal can be formed of sufficient strength to withstand the attrition of such substances as the ostrich will eat, is perfectly astonishing. Even pieces of broken glass have been discovered in that locality, mixed with a hetero-

geneous mass of nuts, cords, brass, iron, lead, copper, and tin, some wood, and a collection of stones, some of which weighed more than a pound.

Metals, indeed, seem to be great favourites of the ostrich, who is not particular as to their quality or quantity. Sometimes, however, too great a preponderance of one metal has caused death, especially where its oxide is poisonous. So that, although a moderate amount of copper or brass does no harm, when there is too large a quantity it poisons even an ostrich.

There is on record one instance where from an ostrich's stomach were taken seventy largish copper coins, which, by their oxidizing in the bird's interior, had tinged everything in the stomach of a green colour. Most of them had been so worn away by friction against each other and the stones that shared their fate, that barely one-fourth of their original substance remained. Some of them had been bent when the bird ate them, and it was found that the convex side was rubbed and polished quite smooth, while the other, and concave side, was left in its original state.

But even these metal-eating experiences fall short of the feat performed by a tame ostrich. Its owner was employing himself in casting bullets, and, as he turned them out of the mould on the floor, the ostrich deliberately picked them up and swallowed them. The non-bullet-manufacturing reader may as well be informed here, that, when bullets are shaken out of the mould, they are all but red hot; they cause cold water to hiss when they are plunged into it, and if they are laid upon a wooden surface they burn black spots wherever they touch it. And if an unwary bystander should pick up one of these new shining bullets, he finds his fingers wofully burnt.

So the callousness of the bird's interior may be imagined. And this insensibility to pain evidently extends to the throat, neck, and mouth, for if the

first of those hot bullets had caused any pain as it was passing down the bird's long neck, it would hardly have picked up a second.

Still, an ostrich can swallow substances that are too hot and too hard for it to bear, and one has been killed by eating a large quantity of quick lime. And one of those birds that was kept in the Zoological Gardens swallowed so large a portion of a parasol, that even its powerful digestion could not overcome the difficulty, and after becoming deformed from the effect of the parasol, it ultimately died.

Those tame ostriches are certainly wonderful creatures in the eating line. One day I was walking by the side of the ostrich department in the Zoological Gardens, having in my hand part of a bun, the remainder of which had been given to sundry animals. Suddenly a dark shadow came over my head, a smart blow was given to my right hand, and, on looking round, I saw an ostrich swallowing the bun with a sedate aspect. It was but a little piece, and was almost entirely hidden in the closed hand, but the bird's beak acted like a wedge, drove the hand open, and, with the same movement, extracted its contents.

Another tame ostrich took an ordinary door-key out of a spectator's hand, and swallowed it on the spot.

As a general fact, the food of the ostrich is strictly vegetable, but there are exceptions to most rules, and an exception to this rule is not wanting. A mother duck had successfully hatched a large brood of ducklings, and was leading them about in all the pride and pomp of maternity. Unfortunately, she happened to pass by a spot where a tame ostrich was kept, and then happened a terrible catastrophe. For with the mildest and most gentle expression imaginable, the ostrich stretched out its neck, pecked up one duckling after another, and swallowed in rapid succession the whole brood, heedless of the remonstrances and attacks of their afflicted mother.



OSTRICH EATING DUCKLINGS.

How the ostrich procures its food in the midst of the sandy desert, where it is often found, seems somewhat of a mystery. But it is extremely fond of grain of all kinds, and is, therefore, rather a terror to the corn-growers of Southern Africa. A whole posse of ostriches will sometimes make a raid upon a corn-field, and make sad havoc in a single night. For the ostrich is a bird of discrimination, and eats only the ears of the corn, not troubling itself about the straw; so that, after a flock of ostriches have passed through a rich corn-field, little but the straw is left.

In its native country, the chief use to which the ostrich is put, is to keep up a supply of eggs, these being absolute necessities of life in these dry and sandy regions.

In the first place, they are in great request as articles of food, and are dressed in various modes. That method of cooking them, however, which seems to be in greatest estimation, is remarkable for its simplicity. The egg is placed upright in a pile of hot wood ashes; a hole is broken in the upper end, whether big end or little end I do not know, and through that hole a stick is introduced. The stick is kept constantly rotating round the interior of the egg, so that as the heat increases, it is equally diffused, and the entire contents, yolk and white together, are converted into a kind of omelet.

Sometimes butter is introduced by way of improvement, but whether any especial improvement is gained may be doubted. For it may be said of the African butter, as has been well remarked of the Norwegian article, that you may have it of all qualities, ranging from very bad to indescribably beastly, and the introduction of either of these samples would hardly cause much improvement, at all events to the palate of an European.

The flavour of them is not unlike that of the duck's egg, but stronger.

There is a very remarkable formation that is gene-

rally found in ostrich eggs. In their interior are many oval-shaped pebbles; these are smooth, very hard, and either of a yellow tint, or quite white. As many as nine or twelve have been found in a single egg. Those egg-eaters who are sufficiently civilised to wear clothes, use these pebbles as buttons, their shape and size being well adapted for such a purpose. "They are," as an author says, "about the size of a large pear," but I imagine that the last word is a misprint, and that it ought to have been a "large bean." I never ate an ostrich egg myself, but I know those who have eaten many, and they tell me that these pebbles are of various sizes, from that of a pea to a large scarlet-runner bean. Their object is not yet, I believe, known, nor how they get into the egg. The reel in the bottle is nothing to so difficult a problem.

The ostrich egg has a very useful property, that of keeping fresh for a long time. On voyages, therefore, or long journeys, they are invaluable, for they do not even require that constant turning and attention which is needed to preserve ordinary eggs sweet. And they are so large that one egg will serve as a very tolerable meal for several human beings. That is, for civilised human beings; for no one yet has been able to place any limit to the amount of food which a hungry savage will consume, and still call himself hungry.

The shell of the ostrich egg is very thick, and nearly as strong as bone, so that it is of the greatest use for holding liquids without much likelihood of breaking.

When a spring contains good water, the women of the neighbouring tribes are sent to it from very great distances, having on their backs either karosses or nets, containing some fifteen or twenty empty ostrich eggs. These are filled with water through a small hole at one end, which is stopped up with dried grass, and then the poor women have to toil

back again to their lords under a burning sun, and carrying this heavy load.

For there the women are the working cattle, the men do nothing but sleep, eat, drink, smoke, and snuff; their only occupation being battle or hunting, and their only toil cattle-stealing.

The Bosjesmen make use of these eggs in a very singular manner. When they determine upon a raid in some particular quarter, they send forward women and others laden with ostrich shells filled with water. These they bury in the sand at regular intervals, and then return.

Preliminaries having been thus arranged, off goes the little army, carrying their bows and a plentiful supply of poisoned arrows. They arrive at the spot marked out, seize the cattle, drive off as many of them as they can manage, and destroy the others by putting a poisoned weapon into each of them. On their return the buried ostrich eggs afford sufficient water for themselves and the cattle, while the plundered foes are forced to stay at home. For, in those regions to wander to any distance from water is certain death to the horse if not to the rider also, and the robbers are therefore as safe as if the sea divided them from those whose goods they had taken.

The number of eggs in one nest is often very considerable, and it is generally supposed that several females have a common nest among them. From twenty to forty eggs are frequently found in the nest, beside some ten or twelve others, which are arranged round the margin.

The nest is hardly deserving such a name, for it very much resembles those circular pits dug by children on the sands with their wooden spades, and in which they sit in a circle. It is a mere shallow pit scraped out of the sand, about three or four feet in diameter. The sand that is scooped from the interior is arranged round the margin so as to make a slight parapet.

The ostrich is a very wary bird, quick-eyed, sharp-scented, and jealous in the extreme. So, if a human being has even passed by the nest on the windward side, the ostrich discovers the fact on her return, and breaks all the eggs. In order to procure a constant supply of eggs, the natives take with them certain very long sticks, and stand well on the lee of the nest. By means of the rods, they rake out the eggs without polluting the nest with a human touch.

As far as the native human goes, there is small credit to the ostrich for detecting the scent. Water is not particularly abundant in those regions, and washing is a thing unheard of. Moreover, the savages decorate themselves with grease in vast quantities, and as that substance soon becomes rancid, even if it is not in that state before it is placed on the person, the perfume is not one of the most agreeable, but certainly sufficiently strong.

It is now well enough ascertained that the ostrich is not quite so cruel a mother as has been imagined. The popular idea on the subject used to be, that when the eggs were laid, the parent bird took no further trouble about them, but left them to hatch or addle just as might happen. However, it is now known that not only does the hen bird sit upon her eggs, but that the male takes his turn also. Both birds certainly do leave the nest in the middle of the day, but that is only because the heat of the sun is sufficient to keep up that supply of warmth necessary for the perfection of the young birds.

There used to be a pretty superstition regarding the manner in which the ostrich hatched her young. She was said to sit beside the nest and look fixedly at the eggs, and so to hatch them by the ardent gaze of her love.

An old Arabic manuscript says that "When the ostrich would hatch her eggs, she does not cover them as other fowls do, but both the male and female

contribute to hatch them by the efficacy of their looks only: and therefore, when one has occasion to go to look for food, it advertises its companion by its cry. The other never stirs during its absence, but remains with its eye fixed upon the eggs until the return of its mate, and then goes in its turn to look for food.

“This care of theirs is so necessary, that it cannot be suspended for a moment; for if it should their eggs would immediately become addle.”

Southey makes a very happy use of this passage in his “Thalaba.”

The eggs that skirt the nest are supposed to be laid for the purpose of feeding the young birds with soft food before they are able to eat the hard and coarse substances on which the adult bird feeds.

Both parents have been seen to take great care of their young brood, thus putting to shame those censorious personages who assert that the ostrich cares not for her eggs or her young. And on several occasions these birds have been seen to perform an action closely resembling the well-known habit of the lap-wing.

It has sometimes happened that a traveller has come suddenly upon some adult ostriches surrounded with their young. All the party scampered off, but suddenly the male bird appeared as if he had broken a leg, fell down in the sand, and struggled violently. And while he was thus distracting the attention of the intruders, his mate was quietly leading off the young brood in another direction. Sometimes the female bird shams lame, while the male carries off the young. And when a deceived spectator is flattering himself that he shall find the maimed bird an easy prey, it picks itself up and vanishes.

On account of the great length of its legs, the ostrich has to sit on the nest in a curious attitude, with its feet thrust forward.

The natives contrive to make use even of the fragments of broken egg-shells, by grinding them into

various shapes, and making ornaments from them, such as rings or beads.

In former days, when ostriches were not so well known as they are now, the shells were ranked high among medicinal substances. Several diseases were thought to yield to the effect of a dose of ostrich shell, blindness being one of the maladies that was curable by it. The shell was administered as a very fine powder.

I wonder whether the medical men of A.D. 2000 will laugh at our medicines as we now ridicule those of the doctors of 1600. We now don't think that there is very much efficacy in powdered egg-shell, or even in that most precious of substances, the egg of the Phoenix, which we, in these days, call the cocoa-nut. We don't now cure fractures by mingling the ashes of a woodmouse with barley, and putting the mixture to the part affected, nor even do we spread those ashes upon a little piece of cloth and cover it with wool for the same object. And if we were short-sighted, we should not endeavour to lengthen our vision by the following rather obscure prescription.

"Country mice, that is to say those mice which are found in the fields, being bruised and burned to ashes, and mingled with fresh honey, doth comfort or restore the sight of the eyes by diminishing the darkness or dimness thereof; in what field soever you shall find anything, dig them up by the roots with a little stake or post."

Now-a-days we laugh at such queer notions, but if a medical practitioner at that time had dared to give his opinion that the remedy was useless, he would have met with very bad treatment at the hands of his associates.

The voice of the ostrich is variously described, according to the temper of the bird, or the hour of the day. Its ordinary night cry is said to be deep and powerful, not unlike the distant roaring of a lion. But when the ostrich is angry and fights, it

hisses, something after the goose fashion, and if it drives away its adversary, or overcomes him, it utters a self-satisfied kind of cackle.

The ostrich is easily tamed, and it has even been taught to carry weight, after the manner of a horse. Adanson relates an anecdote concerning two ostriches that lived at a factory on the banks of the Niger, and had been trained for this purpose. One of them was so strong, that it carried two full-grown men on its back without seeming to be at all distressed by their weight. Even when thus loaded, it ran with such speed that it hardly seemed to touch the ground with its feet. And the other bird, which was smaller than its companion, carried a single man with the same ease.

This amusing scene was often repeated in Mr. Adanson's presence, and he seems greatly to wish that the birds could be regularly brought into the service of man, for their swiftness would surpass that of a racehorse, although they might not be able to keep up for so long a time.

These birds seemed to be very proud of themselves, and quite conscious of their own beauty. They were accustomed to strut in the sun along the side of the house for the purpose of admiring their own shadows. As they went along, turning round every moment for another peep at their beautiful forms as reflected on the wall of the house, they used to keep their wings continually quivering, probably for the object of fanning themselves by their vibration.

As so vast an amount of strength is concentrated in the loins and hind-legs of an ostrich, it is evident that there must be a corresponding amount of nerve, through which to supply the muscles with vital fluid. And on dissection of the spinal column, it is found that the volume of nervous matter receives a sudden increase, precisely where reason would show it to be required.

The entire spinal cord and brain present a curious

appearance when separated from the rest of the bird. That of the ostrich, whose stomach and its contents I have already recorded on p. 368, was placed in a long glass tube filled with spirits, the tube having been made expressly for its reception. Almost every one who sees it, takes it for a snake. I never saw any one who was not a comparative anatomist refer it even to the bird tribes.

Curiously enough, in its wild state, the ostrich associates with those enormous herds of quadrupeds that are found in Africa. And the aspect of one of these herds is most astonishing, for there are to be seen mixed up together, giraffes, zebras, antelopes, gnooks, ostriches, and all kinds of creatures, in wild confusion.

Happy is the Bosjesman who finds one of these herds in a spot tolerably near a rocky pass. For he collects plenty of his companions, some of whom line the pass, well armed with spears and arrows, while others go silently into the plains, and, by judicious management, drive the herd into the pass. Once there, the fate of most of them is sealed. For, not only are they attacked by a shower of assagies and arrows, while their comrades are driving the herd, those that line the pass loosen sundry rocks, and rough stones, which come thundering down the rocky heights among the herds, killing and disabling, like so many cannonballs.

The structure of the young bird bears some resemblance to that of the reptile, especially in its earlier stages of existence. This similitude is shown chiefly in the skeleton and in the formation of the vertebræ. There are certain processes from the vertebræ of the neck called "costal appendages," and even in the half-grown ostrich these are not united to the vertebræ from which they proceed, but are movable, and quite separate.

This structure is found to exist in the crocodiles, and in those reptiles the bones remain permanently

separated from each other, while in the bird they become fixed when it attains its full growth. There is also in the ostrich a curious expansion of the tail vertebræ, which is supposed to exist for the purpose of supporting the large plumes that adorn that region.

In so dry a country as Africa, where the water-springs are few and far between—and yet the birds make their nests in the thirsty desert—it is evident that either the ostrich must be made capable of existing without water, or that it should be endued with some structure for maintaining the supply.

Now, no creature, in whom is blood, can exist without water, without which the blood would be only a hardened cake; and, consequently, some structure must exist to meet the difficulty. The peculiar organs which are found in the interior of the camel for this purpose are well known, and it is found, on dissection, that an arrangement similar in effect, though not in form, gives to the bird the power of taking in a large supply of water and of retaining it.

This object is attained by a modification of the crop, which is so formed as to present the appearance of another stomach, and, indeed, has been so termed. It is, however, merely the crop very much enlarged, and so forming a pouch, or reservoir, capable of containing several pints of water.

There are many other interesting anatomical peculiarities in the structure of this remarkable bird, but in a work of this character they would be rather out of place, and I therefore omit them.

Of a genuine ostrich hunt I was never a spectator, but I did once see an ostrich chase, which, if not so exciting as those of Southern Africa, was yet supremely amusing. The chase in question took place in a Hippodrome, and, being quite unpremeditated, was, of course, far more spirited than if it had been previously got up.

On the hand-bills it was mentioned, that two living

ostriches would be produced, and that there would be an ostrich chase. In due time, out came the birds in question, followed by men on horseback, dressed according to the theatrical ideas of South-African savages. I will not be certain that they did not wear scalps and bison skins. However, out they came, and put their horses to speed after the ostriches, who trotted away with the greatest coolness. This lasted for some time, until the order was given for them to be withdrawn. The horses went away easily enough, but the ostriches took a sudden turn under the nose of the horses, and ran back again.

Several men ran shouting after them, but all to no purpose, and they were obliged to call a number of mounted men to their aid. And then occurred such a comical scene, the ostriches appearing to enjoy themselves thoroughly.

After an enormous amount of manœuvring and shouting on the part of the horsemen; and of applause and laughter on that of the audience, the birds were fairly penned in a corner, and there was apparently an end of the matter.

But hardly had the mingled mass of horse and foot closed up, than, in some mysterious manner, the ostriches ducked their heads, disappeared among the horses' legs, upset a man who tried to stop them, and were next seen twenty paces in the opposite direction, running away quite at their ease.

Here there was tumultuous applause and cheering from the audience, and much recrimination among the would-be captors.

Another sharp struggle then took place, when the birds, altering their plans, scrambled over the skirting boards, and got into the open space in the centre instead of remaining in the exterior circle. Here they had plenty of space to run, and the difficulty was increased.

I do not know how long the birds baffled their pursuers, for it was much too exciting a business to leave

leisure for looking at watches. At last, a boy literally threw himself on one of the ostriches as it passed under the spot where he was standing, clasped his arms round its neck, and hung on gallantly, in spite of the struggles of the bird.

Its progress being now partially arrested, others came up, and by dint of pulling, and hauling, and pushing, they got that bird safely out of the inclosure, and then went back for the other. After a spirited struggle, the second bird was caught also.

All who witnessed the scene agreed that this unpremeditated scene was better worth witnessing than all the rest of the performance, and we would willingly have paid a second time to be indulged with a repetition of the proceedings. The birds were two young specimens, and about two-thirds grown; and they took to the amusement as if they were a couple of boys playing at prisoners' base, or some similar game.

“And when they next do run abroad,
May I be there to see.”

CHAPTER XXVII.

OSTRICHES—*continued.*

The Ostriches of both Worlds.—Asia.—The Cassowary.—Its Plumage and Colour.—The Wing-spurs.—Structure of the Head.—Its Food.—Irritated by the Colour red.—America.—The Rhea.—Its Voracity.—How destroyed.—Its Power of swimming.—Structure of Nest, and Description of Eggs. The “Huachos.”—Ferocity of the Rhea when sitting.—The “Bolas.”—The Petise.—Australia.—The Emu.—Its Sanctity.—Curious Custom.—Emu Oil.—Young Emus.—Voice of the Emu.—Its Size.—Arrangement of its Feathers.—New Zealand.—The Apteryx.—Why so called.—Its native Name.—Uses of its Plumage.—How obtained.—Discretion and Valour.—Warning to Taxidermists.—Curious Habits.—Beak of the Apteryx.—Its Mode of obtaining Food.—Its probable Extinction.

BOTH the New and Old Worlds have their representatives of the ostrich family, and these representatives I shall briefly mention. Among them, by the way, is placed the dodo, but as its position in the ornithological series has been so repeatedly changed, and we know so little of it, I shall not here insert it among the ostrich tribes.

The ostrich of Africa has but two toes, while those found in the Asiatic Archipelago, America, Australia, and New Zealand, possess more of those members; the Cassowary, the Rhea, the Emu, being each gifted with three toes on each foot, while that very singular bird, the Apteryx, has four.

The Cassowary is found in tolerable quantities in the Malaccan peninsula and the neighbouring islands. The two points of the bird that strike the observer are the plumage and the head. The plumage

is of a very singular character, and hardly seems to be composed of feathers, but of a succession of hairs, arranged evenly over the creature's body. These are, however, true feathers, although curiously modified, for some reason at present unknown.

Their colour is of a black tint, with the slightest possible idea of red, and each feather is double, two plumes growing out of one shaft. The plumes are often some thirteen or fourteen inches in length, and are of a substance very much resembling the hair of a horse's tail. The shaft, or stem, from which they spring is very short, black, and flattened. A kind of soft down proceeds from the shaft, and defends the skin from sudden changes of temperature, but this down is so short, that it is quite concealed by the long hairy feathers that droop over it.

The whole of the body is covered with these strange plumes, and even those on the wings, with but a single exception, are of a similar character. In general, the wings and tails of birds are furnished with feathers of a firmer consistency than those which seem merely to clothe the body; but in the cassowary, the entire body, tail, and wings, all have the same covering. There is, indeed, on the wings a modification of the feathers that correspond to the quills of flying birds, but it is only a modification. On each wing are five short, round, spines, something like those of the porcupine. The largest of them is only eleven inches in length, and its tip is not so sharp as those of the others, probably because it is more exposed to friction.

The whole wing when stripped of feathers, only stands out some three inches in length, so that its inadequacy to support the bird may be easily imagined, the cassowary standing about five feet in height.

The head of this bird is surmounted with a curious structure that gives the bird a look of being helmeted. The helmet was even thought to be only a process of

the outer covering, and to be annually shed with the feathers in the moulting-season; but it is really composed of bone, honey-combed in a manner that very much resembles the interior construction of the elephant's skull. This bony crest is barely perceptible in the young bird, and only attains its full height and perfection when the bird arrives at adult age. The same circumstance takes place with the common guinea-fowl.

Whatever may be its food in its wild state, it is sufficiently voracious in captivity. It seems much to affect apples, and has been known to swallow, entire, an apple of considerable size, trusting to the gizzard to bruise it. It is fed generally on bread, fruits, and vegetables, among which carrots are mentioned; and it drinks about half a gallon of water per diem.

It is rather remarkable that the cassowary should so far partake of the nature of the bull as to be irritated by the colour red, and so far of the nature of the house dog, as to dislike rags. Yet such is the case; and a tame cassowary has been repeatedly seen to dash at people, and to use its best endeavours to kick them, simply because they wore red garments, or were not dressed respectably.

The eye of the cassowary is very brilliant and fierce, and, aided by the bone helmet, gives it quite a warlike aspect. It does not seem to be a particularly intelligent bird, although closer observation might, perhaps, discover in it as much reason as is possessed by other birds of whose habit in a wild state more is known.

The American ostriches go under the scientific title of Rheas, and very curious birds they are.

They have much the same kind of habit as the African ostrich, especially in their speed, their mode of nest-making, and their propensity for eating all kinds of strange substances. It is said of them, that when little fish are washed on shore, they are eaten by the rhea, which circumstance affords a

parallel to the duckling-devouring ostrich mentioned on p. 370. And they are also said to eat amber, when they can get it.

Of the habits of the Rhea, so excellent an account is given by Darwin, that part of the description is here given in his own words.

“ This bird is well known to abound on the plains of La Plata. To the north, it is found, according to Azara, in Paraguay, where, however, it is not common; to the south, its limit appears to have been from 42° to 43° . It has not crossed the Corderillas, but I have seen it within the first range of mountains on the Uspallata plain, elevated between six and seven thousand feet.

“ The ordinary habits of the ostrich (rhea) are well known. They feed on vegetable matter, such as roots or grass; but at Bahia Blanca I have repeatedly seen three or four come down at low water to the extensive mud banks, for the sake, as the Gauchos say, of catching small fish.

“ Although the ostrich in its habits is so shy, wary, and solitary, and although so fleet in its pace, it falls a prey, without much difficulty, to the Indian or Gaucho armed with the bolas. When several horsemen appear in a semi-circle, it becomes confounded, and does not know which way to escape. They generally prefer running against the wind, yet at the instant they expand their wings, and, like a vessel, make all sail.

“ On one fine hot day I saw several ostriches enter a bed of tall rushes, where they squatted, concealed, till quite closely approached.

“ It is not generally known that ostriches readily take to the water. Mr. King informs me that at Patagonia, at the Bay of St. Blas, and at Port Valdes, he saw these birds swimming several times from island to island. They ran into the water both when driven down to a point, and, likewise, of their own accord, when not frightened. The distance crossed

was about two hundred yards. When swimming, very little of their bodies appear above water, and their necks are extended a little forward; their progress is slow. On two occasions I saw some ostriches swimming across the Santa Cruz River, where it was about four hundred yards wide, and the stream rapid.

"The inhabitants who live in the country readily distinguish, even at a distance, the male bird from the female. The former is larger, and darker coloured, and has a larger head.

"The ostrich, I believe the cock, emits a singular deep-toned hissing note. When first I heard it, while standing in the midst of some sand hillocks, I thought it was made by some wild beast, for it is such a sound that one cannot tell from whence it comes, or from how far distant.

"When we were at Bahia Blanca, in the months of September and October, the eggs were found in extraordinary numbers, all over the country. They either lie scattered single, in which case they are never hatched, and are called by the Spaniards "huachos," or they are collected together into a hollow excavation, which forms the nest. Out of the four nests which I saw, three contained twenty-two eggs each, and the fourth twenty-seven. In one day's hunting on horseback, sixty-four eggs were found; forty-four of these were in two nests, and the remaining twenty scattered huachos.

"The Gauchos unanimously affirm—and there is no reason to doubt their statement—that the male bird alone hatches the eggs, and that he for some time afterwards accompanies the young.

"The cock, when on the nest, lies very close; I have myself almost ridden over one. It is asserted that at such times they are occasionally fierce, and even dangerous, and that they have been known to attack a man on horseback, trying to kick and leap on him. My informant pointed out to me an old man whom

he had seen much terrified by one of these birds chasing him."

This account corroborates the assertion respecting the fish-eating habits of the Rhea. And the fact of its swimming so well is very remarkable, for the ostrich, to which it is so nearly allied, does not seem to have any power in the water. Indeed, it would have but little chance of exercising that power, and, as has already been mentioned, is purposely driven into water whenever practicable, because it can be there easily knocked on the head.

The "bolas," by which this bird is taken, form a terrible weapon in the hands of any one, terrible to the foe in the hands of an experienced hunter, and equally terrible to himself in those of a tyro, who will be quite as likely to knock out his own brains as those of his enemy; much in the same way as an inexperienced thresher generally fetches himself some severe blows on the top of his head before he learns to strike the corn at his feet.

The form of the bolas is simple enough. Two round, heavy balls, sometimes spherical pebbles, but generally made of iron, are affixed at the ends of a thin but strong rope. This weapon is carried in the hunter's hands, and can be used in various ways

If he comes up close to an antagonist, he holds the rope near the end, and delivers a violent blow with the iron ball, much after the fashion of the "life-preserver" of this country.

Sometimes he swings it round his head like a lasso, and hurls the loaded end at his adversary, retaining the other end so as to draw back the weapon after the blow has taken effect, or in case of missing. But when he is chasing game, he employs the bolas in a very different way. Having ridden as near as he judges expedient for his aim, and still whirling the bolas round his head, he launches one of the balls at his intended victim, following it immediately with the other.

The two balls circle through the air, and they are

thrown with so excellent an aim that a portion of the cord comes on the creature's back, neck, or legs. The weight of the balls instantly wraps the cord round the embarrassed creature, and the more they turn, the tighter the cord becomes, so that in most cases the animal is so entangled as to be brought to the ground at once, even if the heavy balls do not stun it as they twist round the body. But in any case, the bolas impede the course so much that the hunter easily comes up with his chase.

Some hunters use a third ball, attached to one end of a cord, whose other end is fastened to the centre of the chief rope, so that there are three of these terrible weapons revolving at the same time.

The facts that have been ascertained respecting the eggs of the rhea, and the mode of their maturing, will probably afford a key to the difficulties concerning those of the African ostrich; for their habits are so very similar that there is good ground for supposing the rhea may be, as it were, a telescope through which to observe the ostrich.

Mr. Darwin noticed, as may be seen above, that the eggs of this bird were collected together in nests precisely similar to those of the ostrich; and it has been satisfactorily proved that four or five hen birds unite in laying in the same nest. But as much as that was known concerning the ostrich-nest; and there yet remains a difficulty.

As many as eighty eggs have been found in one nest; and as it has been discovered that the bird only lays one every three days, that will give an aggregate of sixty days occupied in laying so many eggs. Now, when the young brood are seen, the whole posse of little ones appear to be of much the same age. It is, therefore, conjectured that, although there are several females to each nest, yet that there are as many nests as females; and that, by an amicable arrangement among themselves, they so manage as to get all the eggs of one period collected into one

nest, and all those of another into a second nest, leaving to their husbands the trouble of collecting them and attending to their safety.

The great number of scattered eggs, called huachos, strengthen this idea; and Mr. Darwin supposes them to be the eggs which have been laid and forgotten before the females could manage matters among themselves and find convenient husbands.

The huachos can hardly be meant for the young birds' food, because they are usually found in an unbroken state, but addled.

One writer, by the way, when treating of the ostrich and its curious habit of laying supernumerary eggs around the nest, puts forth a theory, which is ingenious enough. He says that the exposed eggs, being thus exposed, become addled and putrid, while those on which the mother sits are being hatched. When the young ostriches come forth, the parent bird breaks the addled eggs, which immediately attract a swarm of flies and beetles, which the young eat as fast as they come, so that there is a constant and never-failing supply of food for them.

There seems to be hardly any doubt that both the male and female bird take their proper share of the work of sitting on the eggs; and a traveller in the countries where the rhea lives tells us that the female bird sits by day and the male by night.

There is another species of rhea, not so large as that just mentioned, which has been introduced to the scientific world by Mr. Darwin, and has very properly been called by his name. The Gauchos call it "Avestruz Petise." The bird had a narrow escape of losing its British reputation, at all events for the present; for when it was shot, it presented much the appearance of a common rhea two-thirds grown. The travellers being hungry, skinned and cooked it before the error was discovered, and, consequently, only portions of the specimen were preserved. It is

said, however, by the Patagonian Indians, to be common in many parts of the country.

It was remarked by those who had many opportunities of seeing the birds, that they did not expand their wings when first starting off at full speed, as most similar birds do.

There now remain two curious species of birds belonging to the ostriches, one of which is a native of Australia, and the other of New Zealand. The first of these birds is well known in England; for it is of a tolerably hardy constitution, stands our climate well, and breeds in captivity.

Among the native Australians, who are as curious examples of the savage man as can be found anywhere, the Emu appears to be a sacred bird, as far as their idea of sanctity goes. Boys and young men are not permitted to touch its flesh, so that to be an emu-eater is a privilege conceded only to the sage and venerable. There are many other similar customs among the Australians, and also among other savage nations.

They have another remarkable custom, and a very cruel one, with regard to the emu itself. When they capture one of these birds, they break its wings,—an action for which they assign no reason, and whose object seems sufficiently incomprehensible. For the wings are so remarkably small, being, in fact, almost entirely hidden in the long plumage of the body, that a reason for breaking them is not easily found. The custom may have some religious significance.

Mr. Bennett, who had many opportunities of seeing this bird, remarks of it—

“ Its food appears to be wholly vegetable, consisting chiefly of fruits, roots, and herbage, and it is consequently, notwithstanding its great strength, perfectly inoffensive. The length of its legs, and the muscularity of its thighs, enable it to run with great

swiftness ; and as it is exceedingly shy, it is not easily overtaken or brought within gunshot.

“ Captain Currie states that it affords excellent coursing, equalling, if not surpassing, the same sport with the hare in England ; but Mr. Cunningham says that dogs will seldom attack it, both on account of some peculiar odour in its flesh which they dislike, and because the injuries inflicted upon them by striking out with its feet are frequently very severe.

“ The settlers even assert that the emu will break the small bone of a man’s leg by this sort of kick ; to avoid which, the well-trained dogs run up abreast, and make a sudden spring at their neck, whereby they are quickly dispatched.”

“ Its flesh has been compared to coarse beef, which it resembles both in appearance and taste. There is but little fit for culinary use upon any part of the emu except the hind quarters.”

Not only is the flesh of this bird good for food, but it is much sought after both by natives and settlers, for the sake of its skin. Independently of the feathers, the skin affords an oil of a peculiarly pure and bright nature. Its eggs are also valued for food. Each emu generally lays some six or seven eggs, which are of a dark green colour, and, being tolerably large, afford much nourishment even to the Australian, who, of all gormandizing savages, appears to possess by far the greatest powers of gluttony. Some of their exhibitions in this way are almost incredible, and the weight of cooked flesh that a native will eat, and the pails of sweetened water that he will drink, almost surpass belief.

Like the rhea, to which bird it presents a considerable resemblance, the emu is a good swimmer, and has been often seen to take the water voluntarily.

The young of this bird are pretty little creatures, and as is often the case with creatures that when adult are of an uniform colour, their plumage, instead

of the sober and simple brown mixed with gray that forms the only tinting of the full-grown emu, the young birds are adorned with four longitudinal black bands, passing over the back and sides, and divided from each other by a narrow white line. These black stripes pass up the neck, but do not quite reach the head, which is, however, decorated with scattered black spots. The breast, also, and the fore part of the neck are marked with two similar stripes, but hardly so well defined.

The nest of the emu does not seem to be very well known, but it is certain that both birds share the trouble of hatching, although in this case the male seems to have the sitting part of 'the business, while the female stands sentinel outside the nest. When in a wild state it will assemble in flocks of some numbers; one flock having been seen in which thirty-nine birds were counted. They came so close that one of the party who saw them fired at them with a pistol, but did not succeed in bringing one of them to the ground.

The voice of the emu is rather peculiar, being a kind of low, booming sound. Its height equals that of many ostriches, and, indeed, next to the ostrich it is the largest bird known to exist; some specimens reaching the height of seven feet, while five or six feet is an ordinary height even for the captive birds, which are seldom the best examples of their race.

The feathers are remarkable for their arrangement. They are regularly parted down the back, as if they had been carefully manipulated with a comb, and thus they have a peculiarly graceful droop over the sides. The native name for the emu is the Parembang. It is found spread widely over the greater part of Southern Australia, and has been seen on the west coast, and in Kangaroo Island.

There is, probably, a second species, either existing, or that has existed, and been extirpated, as was the dodo, in Madagascar.

We now take a leap across the sea, and land in New Zealand. This country seems to have determined on a rivalry with Australia in the production of queer creatures. The mammalian classes were beyond its powers, for Australia had already taken possession of them by producing the duck-bill, or ornithorhyncus, an animal that could by no possibility be surpassed in eccentricity of shape. So New Zealand, being anticipated in the mammalia, took to the birds, and, as if in defiance, produced the Apteryx—a bird of a shape quite as quaint in its way as the duck-bill. Of the apteryx we are now about to treat.

The name apteryx is as appropriate a title as can be found, at all events to those among whom the bird does not live, and who, consequently, can know but little of its habits, for the word signifies “wingless.” Now, all the other examples of the ostrich tribes, or the Struthionidæ, if we are to speak learnedly, show at least some external indication of a wing. But the apteryx appears to be wholly destitute of such members, even of their rudiments, and a tolerably close examination is required to discover an indication of the spot where wings would be in an ordinary bird. And the bird is just as destitute of tail as of wings, and is finished off short behind. The natives call it “Kiwikiwi,” probably from the sounds that it utters.

To us civilised beings the apteryx is of no very great use, but to the natives it is a bird of strange value, especially to the chiefs, who, as savage chiefs generally do, take everything that happens to hit their fancy, whether it incommodes their subjects or not. And the kiwi hits the fancy of the New Zealand chief very hard, for he covets its skin wherewith to make the mantle that none but chiefs may wear, and which few even of the chiefs are able to procure, as signs of great pomp and power on state occasions. So great a value do they set upon the feathers, that

they can with difficulty be persuaded to part even with a single skin.

Stray feathers are also in much request for the manufacture of artificial flies, which are made in much the same manner as those that are offered for sale in our angling shops, and used in the rivers of England.

The colour of the plumage is tolerably uniform, being of a rather bright brown, with something of a chestnut tint, while the feathers of the lower part of the breast and the abdomen are of lighter colour, merging upon gray. The shape of the feathers reminds one of those of the cassowary, as they are long, hair-like, and have the same droop, but a closer inspection shows very decided differences.

In order to obtain the feathery mantles, regular hunts are organised. These chases are always conducted by night, and the hunters are armed with torches and sticks, and accompanied by dogs. These precautions seem somewhat considerable to be taken against so helpless a bird as the apteryx, but they are quite necessary. For, although the bird cannot fight, it can run, and in its opinion discretion is not only the better part of valour, but a perfect substitute for that quality.

The torches are used, not so much for the purpose of affording light, but in order to distract the attention of the bird, and startle it so effectually, that it forgets for the time the way home.

If it succeeds in reaching its house there is a hard piece of work in hand, for it forms its places of refuge in rocky clefts, or in burrows excavated in the earth. Its general residence is among the fern-beds, where the thick foliage affords an effectual means of concealment. In the burrows above mentioned, the apteryx makes its nest and lays its eggs. The nest is formed of dried fern and grasses, but the eggs themselves have not been brought to England.

As is the case with the other birds of the same

tribe, when fairly brought to bay, it fights desperately, although it cannot do so much damage as its gigantic relation. But its legs, made for running and scratching, can strike with considerable force, and it employs these weapons to the best advantage.

This bird has been before the scientific world for many years, although it got into its wrong place at first, and has only lately been properly located according to its rank in the bird-world. This error was partly attributable to an engraving, and ought to be a warning to taxidermists, by which long word is meant those who stuff, or "set up," the skins of birds, beasts, and other beings.

In the engraving just mentioned, the apteryx was represented as sitting upright on its tail, or rather on the spot where its tail would have been had it been furnished with such an addition to its plumage, and its head and legs so arranged as to give it the aspect of a penguin. And, accordingly, it figured in the writings of one ornithologist as the apteryx penguin.

Exceeding harm may be done by an illustration, or by a wrongly-stuffed animal; and when a false idea has once got into the mind it cannot be rooted out again without a painful wrench.

Although a few years since the apteryx was a very rare bird, there are now several specimens in England, and it is to be hoped that others will be forwarded as soon as they can be procured, for the bird has become gradually scarce in New Zealand, and runs a great risk of extirpation. The skeleton has already been minutely described, and a curious skeleton it is.

When at rest, the bird has a curious habit of turning itself into a tripod, by resting the top of its beak on the ground. In this position it will stand quite still for a long time.

The beak is a very peculiar one, and is rendered more remarkable by the fact that its nostrils are placed

at the extreme tip, and not at the base, as might be imagined from our general knowledge of long-billed birds. So it is evident that the bird does not feed after the manner of the snipe and woodcock, by thrusting its beak into soft mud, as it would in that case be suffocated by the mud getting into the nostrils, and indeed the shape of its feet and legs does not give the idea of a water or marsh-haunting bird.

It is said to draw worms to the surface of the earth by stamping and kicking, a work which it can perform with great energy, and then to seize them with its bill as they poke out their heads to discover what all the noise can be about that disturbed them in their quiet homes.

It may be that this plan is only resorted to in the daytime when the worms are at home, for the apteryx is an exclusively nocturnal bird, and probably, as the worms are nocturnal creatures too, finds plenty of them within reach. It also feeds on insects, more especially on caterpillars of various kinds, and probably on snails.

Supposing that the apteryx does become extinct, a circumstance which seems inevitable at no very distant period, and that the dodo is really one of the same tribe, we have the curious fact that no less than three entire genera have been erased from the earth by the hand of man within a comparatively short time, and that all the three belong to the ostrich family. For the discovery of that giant of birds, the *Dinornis*, or rather of its relics, in New Zealand, has shown that New Zealand once possessed the largest of all birds, but has deprived herself of that honour by the ruthless hands of her featherless bipeds.



GEORGE ROUTLEDGE & SONS' JUVENILE BOOKS.

s. d.

In small 4to, cloth gilt, price 8s. 6d., gilt edges 9s. 6d.

Every Boy's Book. A New Edition. Edited by 8 6
EDMUND ROUTLEDGE. A Complete Cyclopædia of Sport and
Recreation. With 100 Illustrations and 9 Coloured Plates.

In 4to, cloth, and royal 8vo, gilt and gilt edges, price 7s. 6d. each,
Illustrated by the best Artists.

Homes and Haunts of the British Poets. By 7 6
WILLIAM HOWITT. With many Illustrations.

Little Barefoot. A Domestic Tale. By BERTHOLD
AUERBACH. With many Illustrations.

Household Tales and Fairy Stories. With 380
Illustrations by J. D. WATSON, HARRISON WEIR, and others.

Christmas Carols. Set to Music. With Original
Illustrations by the Brothers DALZIEL.

Bonnechose's France. A New Edition, brought
down to September, 1871.

The Language of Flowers. By the Rev. ROBERT
TVAS. With 12 pages of Coloured Plates by KRONHEIM.

Longfellow's Poetical Works. With Plates by
JOHN GILBERT. Author's Complete Edition. Demy 8vo, cloth,
gilt edges.

National Nursery Rhymes. Set to Music by J. W.
ELLIOT. With Original Illustrations, engraved by DALZIEL
Brothers.

Naomi ; or, The Last Days of Jerusalem. By Mrs.
WEBB. With Steel Plates. Post 8vo, cloth, gilt edges.

Poets' Corner. A Collection of the Best Poetry.
Edited by J. C. M. BELLEW. 920 pages, demy 8vo, cloth.

Routledge's Coloured Scrap-Book. With many
pages of Plates printed in Colours, folio, cloth.

4 George Routledge & Sons' Juvenile Books.

SEVEN-AND-SIXPENNY BOOKS—continued.

s. d.

7 6 Dante's Divine Comedy. Translated by H. W. LONGFELLOW. 1 vol., crown 8vo, cloth.

The Poetical Works of Lord Lytton. With Frontispiece and Vignette. Fcap. 8vo, cloth.

Hogg on the Microscope. With 500 Illustrations and 8 Coloured Plates.

Andersen's Stories for the Household. 8vo, cloth, gilt edges, with 240 Illustrations.

Robinson Crusoe. With 110 Plates by J. D. WATSON.

In cloth, gilt edges, 6s. each.

6 0 Routledge's Every Boy's Annual. Edited by EDMUND ROUTLEDGE. With many Illustrations, and beautiful Coloured Plates.

Shipwrecks; or, Disasters at Sea. By W. H. G. KINGSTON. With more than 100 Illustrations.

The Adventures of Robinson Playfellow, a Young French Marine. With 24 Plates, and many Woodcuts.

More Bab Ballads. By W. S. GILBERT. With Illustrations by the Author.

Travelling About. By Lady BARKER. With 6 Plates and 5 Maps.

Ridiculous Rhymes. Drawn by H. S. MARKS. Printed in Colours by VINCENT BROOKS. 4to, fancy cover.

Pepper's Boy's Play-book of Science. 400 Plates.

D'Aulnoy's Fairy Tales. Translated by PLANCHE.

Planche's Fairy Tales. By PERRAULT, &c.

Pepper's Play-book of Mines, Minerals, and Metals. With 300 Illustrations. Post 8vo, gilt.

Motley's Rise of the Dutch Republic. Crown 8vo, cloth, gilt.

An Illustrated Natural History. By the Rev. J. G. WOOD, M.A. With 500 Illustrations by WILLIAM HARVEY, and 8 full-page Plates by WOLF and HARRISON WEIR. Post 8vo, cloth, gilt edges.

Lord Lytton's Dramatic Works. Crown 8vo, cloth, gilt edges.

Houghton's Five-Shilling Books,

Grimm's Household Stories. With 240 Illustrations by WEHNERT. Crown 8vo, gilt. s. d.
5 0

Hans Andersen's Stories and Tales. 80 Illustrations, and Coloured Plates.

Walter Crane's Picture Book. With 64 pages of Coloured Plates. Cloth, gilt edges.

Country Life. Illustrated by Poetry, and 40 Pictures by BIRKET FOSTER.

Sage Stuffing for Green Goslings; or, Saws for the Goose and Saws for the Gander. By the Hon. HUGH ROWLEY. With Illustrations by the Author.

What the Moon Saw, and other Tales. By HANS C. ANDERSEN. With 80 Illustrations, and Coloured Plates.

Chimes and Rhymes for Youthful Times. With Coloured Plates. (Uniform with "Schnick-Schnack.")

Buds and Flowers. A New Coloured Book for Children. (Uniform with "Schnick-Schnack.") Small 4to, cloth.

Schnick-Schnack. Trifles for the Little Ones. With Coloured Plates. Small 4to, cloth.

Watts' Divine and Moral Songs. With 108 Woodcuts, engraved by COOPER.

Original Poems for Infant Minds. By JANE and A. TAYLOR. With Original Illustrations by the Best Artists, engraved by J. D. COOPER.

Little Lays for Little Folk. Selected by J. G. WATTS. With Original Illustrations by the best living Artists, engraved by J. D. COOPER. 4to, cloth, gilt edges.

Sing-Song. A Nursery Rhyme-Book. By CHRISTINA G. ROSSETTI. With 120 Illustrations by ARTHUR HUGHES, engraved by the Brothers DALZIEL.

The Picture Book of Reptiles, Fishes, and Insects. By the Rev. J. G. WOOD, M.A. With 250 Illustrations. 4to, cloth.

Birds. By the Rev. J. G. WOOD, M.A. With 242 Illustrations. 4to, cloth.

Mammalia. By the Rev. J. C. WOOD, M.A. With 250 Illustrations. 4to, cloth.

Routledge's British Poets.

EDITED BY THE REV. R. A. WILLMOTT.

Illustrated by FOSTER, GILBERT, CORBOULD, FRANKLIN, and HARVEY, elegantly printed on good paper, fcap. 8vo, gilt edges, bevelled boards.

s. d.

- 5 0 1. Spenser's Faerie Queen. Illustrated by CORBOULD.
2. Chaucer's Canterbury Tales. Illustrated by CORBOULD.
3. Kirke White. By SOUTHEY. Illustrated by BIRKET FOSTER.
4. Southey's Joan of Arc, and Minor Poems.
6. Pope's Poetical Works. Edited by CARY.
7. Milton's Poetical Works. Illustrated by HARVEY.
8. Thomson, Beattie, and West. Illustrated by BIRKET FOSTER.
10. Herbert. With Life and Notes by the Rev. R. A. WILLMOTT.
12. Cowper. Illustrated by BIRKET FOSTER. Edited by WILLMOTT.
13. Longfellow's Complete Poetical Works. With Illustrations. Fcap. 8vo.
14. Longfellow's Prose Works. Fcap. 8vo.
16. Burns' Poetical Works. Illustrated by JOHN GILBERT.
17. Fairfax's Tasso's Jerusalem Delivered. Illustrated by CORBOULD.
18. Percy's Reliques of Ancient English Poetry.
19. Scott's Poetical Works. Illustrated by CORBOULD.
21. Wordsworth. Illustrated by BIRKET FOSTER.
22. Crabbe. Illustrated by BIRKET FOSTER.
25. Moore's Poems. Illustrated by CORBOULD, &c.
26. Byron's Poems. Illustrated by GILBERT, WOLF, FOSTER, &c.
29. Bennett's Poetical Works. Portrait and Illustrations.

s. d.

Album for Children. With 180 page Plates by 3 6
MILLAIS, Sir JOHN GILBERT, and others. Imp. 16mo, cloth.

Popular Nursery Tales. With 180 Illustrations by
J. D. WATSON and others. Imp. 16mo, cloth.

Child's Picture Story Book. With 180 Plates.
Imp. 16mo, cloth.

A Picture Story Book. Containing "King Nut-
cracker," and other Tales. 300 Illustrations. Imp. 16mo, cloth.

Mixing in Society. A Complete Manual of Manners.
The Children's Bible Book. With 100 Illustrations,
engraved by DALZIEL.

A Handy History of England for the Young.
With 120 Illustrations, engraved by DALZIEL.

Child Life. With Plates by OSCAR PLETSCH. Gilt
edges.

Petsetilla's Posy. By TOM HOOD. Plates by F.
BARNARD. Gilt edges.

One by One. A Child's Book of Tales and Fables.
With 50 Illustrations by OSCAR PLETSCH, and others.

Rhyme and Reason. A Picture Book of Verses for
Little Folks. With Illustrations by WOLF, and others.

The Golden Harp. Hymns, Rhymes, and Songs
for the Young. With 50 Illustrations.

Griset's Grotesques. With Rhymes by TOM HOOD.
Fancy boards.

The Children's Poetry Book. With 16 Coloured
Plates. Square, cloth.

Out of the Heart: Spoken to the Little Ones. By
HANS ANDERSEN. With 16 Coloured Plates. Cloth.

The Nursery Picture Book. With 630 Illustrations.
Folio, boards.

Howman's Juvenile Books.

With Plates, fcap. 8vo, cloth gilt.

The Boy Voyagers.

The Castaways.

The Young Nile Voyagers.

The Boy Pilgrims.

The Boy Foresters.

Tom and the Crocodiles.

Esperanza.

The Young Exiles.

The Bear Hunters.

The Kangaroo Hunters.

Young Yachtsman.

Among the Tartar Tents.

Clarissa.

How to make the Best of It.

3 6

ROUTLEDGE'S

Three-and-Sixpenny Reward Books.

With 8 Illustrations, fcap. 8vo, bevelled boards, gilt sides.

- | | |
|--|---|
| <p><i>d.</i>
3 6 <i>Ancient Cities of the World.</i>
<i>Great Cities of the Middle Ages.</i>
<i>Robinson Crusoe.</i> Coloured Plates.
<i>Sandford and Merton.</i> Coloured Plates.
<i>Evenings at Home.</i> Coloured Plates.
<i>Swiss Family Robinson.</i> Coloured Plates.
<i>Edgeworth's Popular Tales.</i> Coloured Plates.
————— <i>Moral Tales.</i> Coloured Plates.
————— <i>Parents' Assistant.</i> Coloured Plates.
————— <i>Early Lessons.</i> Coloured Plates.
<i>The Old Helmet.</i> By the Author of "The Wide, Wide World."</p> | <p><i>The Wide, Wide World.</i>
<i>The Travels of Rolando.</i> 1st Series.
<i>Celebrated Children.</i>
<i>Edgar Clifton.</i>
<i>The Lamplighter.</i>
<i>Melbourne House.</i>
<i>Seven Wonders of the World.</i>
<i>Queechy.</i>
<i>Ellen Montgomery's Bookshelf.</i>
<i>The Two Schoolgirls.</i>
<i>The Pilgrim's Progress.</i> With Coloured Plates.
<i>The Girl's Birthday Book.</i> With many Illustrations.
<i>The Word ; or, Walks from Eden.</i>
<i>Glen Luna Family.</i>
<i>Mabel Vaughan.</i></p> |
|--|---|

ROUTLEDGE'S

Three-and-Sixpenny Juvenile Books.

Foolscap 8vo, with Engravings, gilt.

- | | |
|--|---|
| <p>3 6 <i>Hans Andersen's Tales.</i>
<i>Heroines of History.</i>
<i>Sketches and Anecdotes of Animal Life.</i> By Rev. J. G. Wood.
<i>Grimm's Home Stories.</i>
<i>Animal Traits and Characteristics.</i> By Rev. J. G. Wood.
<i>Wood's My Feathered Friends.</i>
<i>White's Selborne.</i> 200 cuts.</p> | <p><i>The Four Sisters.</i>
<i>The Golden Rule.</i>
<i>Boyhood of Great Men.</i>
<i>Footprints of Famous Men.</i> By J. G. Edgar.
<i>Rev. J. G. Wood's Boy's Own Natural History Book.</i>
<i>Lillieslea.</i> By Mary Howitt.
<i>Heroines of Domestic Life.</i>
<i>Tales of Charlton School.</i> By the Rev. H. C. Adams.</p> |
|--|---|

